

Center for American Progress



Report of the Commission on Inclusive Prosperity

Co-Chaired by Lawrence H. Summers and Ed Balls

Convened by the Center for American Progress January 2015

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Note from the authors: As in any collaborative process, there has been much give and take among the participants in developing this final product. We all subscribe to the broad analysis and principles articulated here. There may be specific matters, however, on which some of us have different views.

The policy response to the analysis and principles will inevitably differ depending on an individual country's circumstances. This report is accompanied by two appendices that set out potential policy responses in the United States and United Kingdom, respectively. The ideas contained in these appendices are unique to those countries and do not represent the views of the entire commission.

Inclusive Prosperity Commission

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Preface

History tells us that societies succeed when the fruits of growth are broadly shared. Indeed, no society has ever succeeded without a large, prospering middle class* that embraced the idea of progress. Today, the ability of free-market democracies to deliver widely shared increases in prosperity is in question as never before. The primary challenge democracies face is neither military nor philosophical. Rather, for the first time since the Great Depression, many industrial democracies are failing to raise living standards and provide opportunities for social mobility to a large share of their people. Some of those countries that have produced economic growth have done so in a manner that has left most of their citizens no better off. This is an economic problem that threatens to become a problem for the political systems of these nations—and for the idea of democracy itself.

The citizens of industrial democracies continue to value their freedom and their opportunity to participate in the task of self-government. But they also count on their political systems to create circumstances in which they can use their talents and their labor to provide a decent standard of life for themselves and their families. When democratic governments and market systems cannot deliver such prosperity to their citizens, the result is political alienation, a loss of social trust, and increasing conflict across the lines of race, class, and ethnicity. Inclusive prosperity nurtures tolerance, harmony, social generosity, optimism, and international cooperation. And these are essential for democracy itself.

The economic troubles of the democracies also erode support for the democratic idea around the globe. In our time, advocates and apologists for anti-democratic regimes argue that the democracies are no longer capable of managing their problems or creating a sense of social dynamism. Democracies are cast as sclerotic, inefficient, and ungovernable. We believe that this critique is wrong today, as it has

*The term “middle class” is used interchangeably throughout this report with “low and middle income,” which is more commonly used in some other countries.

been historically. But countering this persistent attack on democracy requires that free economic and political systems restore their vitality and reclaim their ability to deliver on the promise of prosperity for all.

It has always been the mission of progressives to ensure rising prosperity and opportunity. A strong, inclusive economy is the platform for a socially mobile, optimistic, and successful society. While the economic mission of progressives is unchanging, the means of its achievement change from generation to generation as the economy evolves. Today, we are living in the age of globalization and technological revolution. Both have delivered much benefit to society, but have reshaped the political economy of western industrialized countries in ways that challenge the middle class and those striving to get into it.

Our report is about embracing the new economic opportunities of the 21st century by finding ways to ensure they serve the vast majority of society. In previous eras, political institutions have responded to economic transformations to ensure prosperity is shared: the New Deal in the United States and the European social welfare state; the “third-way” politics of putting people first of Clinton and Blair by investing in people and reforming institutions. Just as it took the New Deal and the European social welfare state to make the Industrial Revolution work for the many and not the few during the 20th century, we need new social and political institutions to make 21st century capitalism work for the many and not the few.

We offer this report on the urgency of achieving inclusive prosperity because we believe democracy must serve this common good, the cause of social justice and the aspirations of parents for their children. For democracies to thrive, rising prosperity must be within reach of all of our citizens.

Chapter 1

Introduction

Introduction

At the heart of the commission's work is a simple premise: Nations need to ensure both that economic growth takes place and that it is broadly shared. Nations succeed when their middle class is secure in the expectation that those willing to work are able to work and that standards of living will increase. Without that expectation, citizens lose confidence in institutions, social cohesion and international cooperation suffers, and confidence in the future erodes.

In recent decades and particularly in recent years, developed countries have experienced a toxic combination of too little growth and rising inequality. To extents that vary across countries, people are no longer confident in the expectation that hard work will be well rewarded or that their children will live better than they did. Most families find it harder to raise their living standards than they did a generation ago, and there are grounds for concern about stagnation in living standards. Those in work are working longer for less, and those out of work experience lengthy, destructive periods of unemployment. Higher incomes for working families will help avert this stagnation. In the short run, higher incomes will lead to higher demand, which will in turn increase growth. And in the longer run, a high-wage, high-productivity economy is the only route to sustained growth and opportunity for all. Indeed, shared prosperity is the challenge for our time.

Economies transformed

In the decades following World War II, the advanced industrial economies experienced rapid growth and brought an increasing share of households into prosperity. With these changes came a revolution in living standards. Hundreds of millions of people across developed countries were able to work and gain economic security through higher salaries and a series of benefits provided either directly through employers or through government social security systems. Most households came to believe that hard work and careful planning would deliver heightened levels of security for themselves and opportunity for their children, year after year. It

was possible for ordinary families to enjoy better housing, and health care, and a secure retirement, and to provide their children with higher education and the prospect of economic opportunity as incomes rose broadly as the economy grew.

By the end of the 1970s, inflation and unemployment seemed out of control. In the 1980s, conservative leaders such as Ronald Reagan and Margaret Thatcher came to power with an anti-government agenda of market fundamentalism and individualism. Measures of inequality, which had been stable or declining, began to increase.

With the return of center-left governments in the 1990s, politicians such as Bill Clinton and Tony Blair sought to marry economic efficiency with social justice through their policies of the “third way.” They recognized that the collapse of communism was bringing new countries into the global economy while developments in information and communications technology were bringing the world closer together. But they also foresaw that trade and technology were combining to place a premium on higher-level skills and qualifications and to reduce the number of low-skilled jobs, which could be done more cheaply by robots or workers in poorer countries.

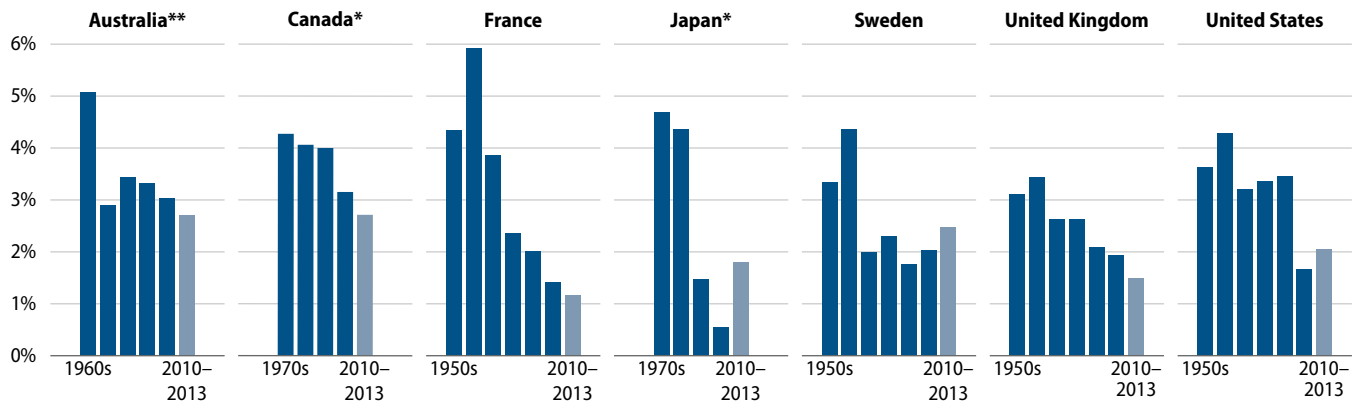
Their policy response was to put people first, emphasizing measures to develop skills and to support work because of a recognition that in a world of increased international competition and a greater and greater ability for capital and innovation to flow across international borders, the most important investments a nation could make were in what was most distinctively national—its people. Along with an emphasis on education and skill development, and greater efforts to support work through tax policy came support for a more open, globally integrated, and managed global economy.

Challenges facing developed countries

Today, developed economies face new challenges for new times. The principles of putting people first need to be updated. Global forces are operating to create new pressures on middle-class incomes and wages at the middle and bottom, and in many countries, institutions that had previously worked to mediate rising levels of inequality have been weakened, leaving families to weather these trends on their own. Therefore, even before the financial crisis and subsequent

recession, some countries, such as the United States, experienced the stagnation of average wages and a decline of median household incomes, all while the real costs of important elements of most people's lives have grown more rapidly. Across the advanced economies, the underlying rates of growth have slowed. (see Figure 1.1) The income that has been generated has been distributed increasingly unequally. (see Figure 1.2)

FIGURE 1.1
Average annual GDP growth rate in select advanced economies by decade



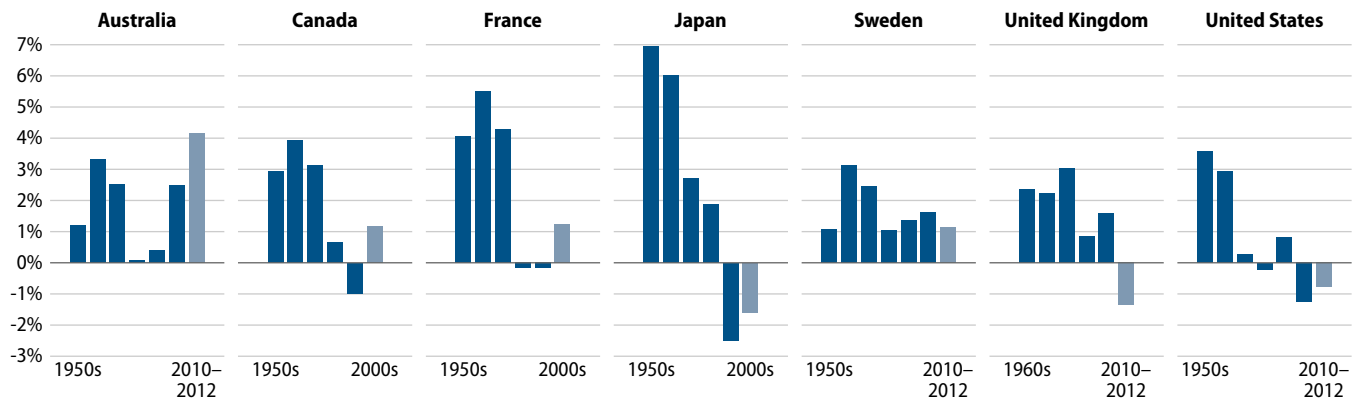
* OECD data not available before 1970

** OECD data not available before 1960

Note: Lighter shading indicates that significantly less than a full decade of data are available.

Source: Organisation for Economic Co-operation and Development, "Stat Extracts: Gross domestic product (GDP)," available at <http://stats.oecd.org/index.aspx?queryid=61429#> (last accessed December 2014). U.S. data from Federal Reserve Bank of Saint Louis, "Real Gross Domestic Product, Billions of Chained 2009 Dollars, Annual, Not Seasonally Adjusted," available at <http://research.stlouisfed.org/fred2/series/GDP1> (last accessed January 2015).

FIGURE 1.2
Bottom 90 percent average annual income growth rate in select advanced economies by decade



Note: Lighter shading indicates that significantly less than a full decade of data are available. Due to sporadic data availability, appropriate decades range from 9–11 years, and endpoints of decades may differ by 1–2 years.

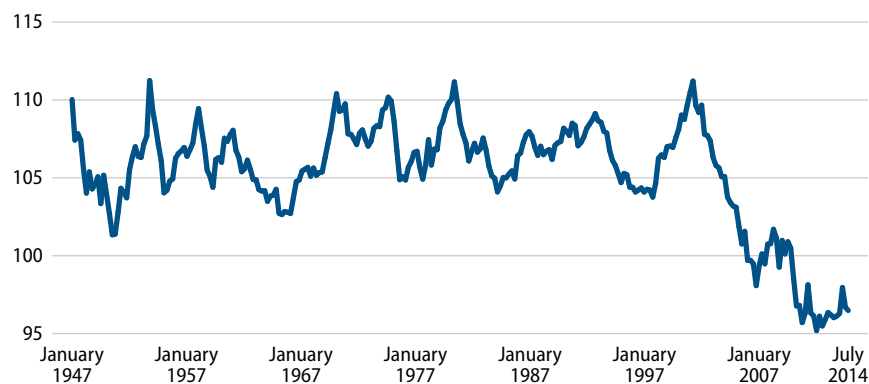
Source: Facundo Alvaredo and others, "The World Top Incomes Database," available at <http://topincomes.g-mond.parisschoolofeconomics.eu> (last accessed December 2014).

Middle- and low-income families across the developed world face downward pressure on wages and incomes. As growth has slowed, most economies have seen a bifurcation between growth in productivity and growth in income from labor. For example, in the United States over the past several years, firms have been profitable, but their success increasingly translates into income for shareholders and top management, not for employees. (see Figure 1.3) This was far less true 50 years ago. Dividend payments and stock-price increases are skewed to increase, not decrease, inequality. It is, therefore, entirely understandable that middle-class families feel that something is amiss when companies are profitable but wages are stagnant.

FIGURE 1.3

U.S. workers' share of income has been shrinking

Nonfinancial corporations sector: Labor share, series indexed to 2009=100, 1947–2014



Source: Bureau of Labor Statistics, "Major Sector Productivity and Costs," available at <http://www.bls.gov/lpc> (last accessed December 2014).

In many countries, the worst effects of the crash were exacerbated by austerity programs as premature tax increases and spending cuts sucked demand out of the economy. Countries such as the United Kingdom have seen little of the hoped-for rebalancing, with growth focused heavily on the housing market. The United Kingdom and United States are at least growing again, but wages are stagnant in both countries; the eurozone is suffering from chronically weak growth; and there is a slowdown in some emerging markets, including China, Latin America, and the Middle East. While tax-and-transfer systems—which provide income support and aid for housing, education, and health care costs, supported by government revenues—have mitigated some of these market outcomes, they have not done so everywhere.

The changing economic environment

While the immediate predicament facing most advanced economies is in large measure a result of the financial crisis and the subsequent policy response, other economic forces have played an important role in creating the challenge they confront—particularly four changes that have fundamentally reshaped the world.

First, the global economy has fundamentally changed over the past 40 years. As communism collapsed and countries gradually liberalized their economies, rapid reductions in poverty and increases in living standards have taken place in Asia and especially China, in South America, and in Eastern Europe, with growth increasingly taking off in Africa. As a result of all these changes, global trade is greater than ever before with new market opportunities opening up in many rapidly growing countries. Many goods are cheaper than ever before, giving consumers in the developed world significant increases in their living standards.

But increasing global economic integration has also meant increased competition for many workers who produce tradable goods and services. As the productive capacity of low-wage countries has increased, the level of import competition has also increased. And as Internet and computer technology has made cross-border business organization less costly and more efficient, it has become easier for businesses to outsource or relocate all or part of their operations to countries where wages, labor, and environmental standards are low.

Second, the profound technological changes that brought down the cost of many goods and services are also replacing traditional middle-income jobs. In addition to unskilled labor—which has, in some cases, been squeezed by globalization and offshoring—advances in robotics and artificial intelligence have put intermediate-skill jobs at risk in what economists call a hollowing out of the labor market. This has been common to most developed countries. Sophisticated machine tools and software are already reducing the need for routine jobs on production lines and in offices. This trend is set to continue with 3-D printers, Google’s driverless cars, and Amazon’s drones. This is creating an even greater premium on higher levels of skills and qualifications, making the returns from ideas, capital, and top-class qualifications greater and greater.

Third, the structure of labor markets has changed. In many advanced economies, such as the United States and the United Kingdom, employment is less likely to be stable or long term. Increasing numbers of workers find themselves in contractual relationships that do not guarantee hours worked or provide benefits such as paid

vacation, sick days, or pension benefits. In the United States, unions represent a small fraction of workers, and therefore, many workers have little power to create upward pressure on wages. Major corporations have opted to use subcontracting to perform basic functions, and many workers are now classified as independent contractors, eroding basic labor-law protections.

Fourth, corporations have come to function much less effectively as providers of large-scale opportunity. Increasingly, their dominant focus has been the maximization of share prices and the compensation of their top employees. In a world where mobility is always a possibility, they have become less committed to their workforces and their communities. And their managements' attention has shifted to financial engineering, particularly with the goal of minimizing tax payments. This sea change has been facilitated by technology that has loosened the connections between top management and ordinary workers.

In summary, declining growth, the effects of the financial crisis, and increasing inequality have combined to put substantial economic stress on middle- and low-income families across the developed world. Poor policy choices have only made matters worse. These challenges are formidable, but they must be met.

Chapter 2 outlines these challenges in more detail.

Creating a better economic model

So how do we create a stronger, fairer, and more sustainable economic model in which the many and not just the few benefit from rising prosperity now and into the future? This is not just a question for governments but for companies and citizens as well.

While some on the left seek to turn away from globalization and technology, that is not a realistic option. No country can prosper in isolation. And firms that stand still and do not adapt to new technology inevitably lose out in global competition. Without successful entrepreneurs and wealth creation that finances investment, there is no possibility for progress. But if successful businesses are necessary for economic success, they are far from sufficient.

Those on the right who argue for a return to *laissez-faire*, trickle-down economics—cutting taxes at the top, stripping out regulation, and making deep cuts to

public services—do not provide a viable alternative. Developed countries cannot succeed through a race to the bottom in which companies simply compete on cost as workers see their job security erode and their living standards decline.

A race to the top is the only route to inclusive prosperity.

How to achieve inclusive prosperity

This report analyzes the economic condition of the middle class across the developed world. The challenges outlined above are not unique to one country; indeed, globalization and technology stop at no border. Across advanced economies, middle-class households have experienced a wide range of outcomes: Some countries, such as Australia and Canada, have experienced continuing middle-income growth, while for many it has halted. Therefore, there is nothing predetermined about a country's abilities to navigate these trends and ensure shared prosperity for its people. Rather than fully embracing isolationism or laissez-faire policies, we must show—as progressives have traditionally done—that a dynamic market economy and a fair society can go hand in hand.

Creating a more-inclusive prosperity with good jobs, decent salaries, and a sustainable future is possible but requires a concerted effort and a major shift in policy across a number of areas. Powerful forces of globalization and technological change must be navigated or inequalities will continue to widen, and for many, precarious low-skill work will increasingly become the norm. The consequence is that growth will stall.

We recognize that we call for bold action at a time when institutions on all levels are deeply mistrusted by the public. However, part of that mistrust has developed precisely because both government and business have failed to offer broadly shared prosperity.

At the same time, the pace and scale of change has grown. Institutions—including governments—must respond more quickly and perhaps be more flexible and adaptive. And for those tasks they do take on, whether delivery of services or regulation, government must treat citizens like participants, customers, and clients. To build greater resilience will require reforming old laws to work in a modern era. For example, in the United States, the architecture of labor laws was created to address the industrial age; today, with the rise of technology, the structure of work has dramatically altered, but U.S. labor law, for the most part, has not.

We must focus on open, efficient government committed to addressing the concerns of its citizens. Confidence in government is at an all-time low, and consequently, the public resists intervention by a government it views as incapable of solving its problems. This forces families that could benefit from public support to face the challenges of the evolving economy on their own. It is a vicious cycle—and a cycle we can and must break by renewing confidence through a government that works effectively and efficiently for its citizens.

There are five key policy areas that need to be developed to deliver inclusive prosperity.

Raising wages: Full employment in an economy where work pays

First, we need to return to wage growth for everyone in a full-employment economy. There are still too many people who are unemployed. In the United States, for example, 16 percent of working-age men are out of work.¹ Furthermore, in the sectors in which job growth is taking place, good jobs with clear career progression must be developed. Developed countries have varying levels of institutional support for workers. In most countries in Europe, collective bargaining agreements cover many workers. However, in the United States, coverage is at a low level and middle incomes are stagnant. In the United States, we need to support the growth of unions and collective bargaining so workers can capture their share of productivity increases.

In many countries, minimum wages have lost their real value. The increase in part-time work across developed countries is associated with salaries that are often less than the living wage and with a lack of access to health care and other employment benefits. To help raise living standards and increase family incomes, there is a need to remove barriers to women's labor-force participation, such as inflexible work environments and high-cost child care. In addition, there is an important role for pro-work tax credits, but they must be used in conjunction with a strong minimum wage and substantial employment benefits to ensure that these credits are an added reward for hard work rather than a subsidy for low pay.

Finally, workers must benefit from increased productivity rather than seeing returns accrue primarily to shareholders. Profit-sharing and share-ownership schemes provide a direct way to ensure that employees have an incentive to help their company to succeed.

Educational opportunity for all

Second, in a world where technological change is increasing productivity and mechanizing jobs simultaneously in so many sectors, raising skills levels is critical to increasing growth in the long term. Focusing on early childhood education, increasing the quality of our schools, eliminating financial barriers to higher education, and providing support for apprenticeship programs are all critical to driving higher skill levels across economies in both tradable and nontradable sectors. Increasingly, a college education is similar to the high school education of the past—necessary for a prosperous life.

Different countries have approached these challenges in different ways. Countries with a more harmonious and less adversarial partnership between workers and trade associations have tended to have better on-the-job training. In some countries, there is a market failure in the provision of on-the-job training as firms fear that training will be wasted if a competitor poaches their member of staff. New institutions are therefore needed to ensure that adequate levels of work-based training take place and to bring together businesses and education providers to ensure that vocational qualifications are what employers need.

Measures to support innovation and regional clusters

Third, ensuring that workers are well skilled and able to participate in the labor market is insufficient unless developed countries remain at the technological frontier. The financial crisis continues to reverberate across advanced economies in an era of weak productivity growth. Innovation drives productivity growth and economic growth. The most innovative cities and regions tend to have higher social mobility and higher wages in lower-skilled service sectors, so there are positive consequences for most people.

It is increasingly recognized that agglomeration effects tend to cluster industries and people with similar skills in particular locations. It is, therefore, critical that cities and regions are given the tools to make their own local decisions to help drive growth.

Greater long-termism

Fourth, it is essential that markets work in the public interest and for the long term rather than focusing only on short-term returns. Corporate governance issues, therefore, remain critical. In the United States, company profits have been high relative to GDP, but this has not produced a corresponding increase in business investment in the post-recession period. There is a need to better align the incentives of corporate executives with the goals of fostering productive capital investment and long-term profitability.

Crucially, a further element of long-termism is the fulfillment of environmental commitments. Developed countries must ensure that they are sticking to their own carbon commitments in order to secure a sustainable future. That means sending clear and unequivocal signals to clean energy companies about their intentions to decarbonize the power sector and to tackle the inefficiency of the existing building stock. If we get this right and take a leadership role in international negotiations around climate change, we will help consumers and businesses reduce their own energy costs and reap the benefits of the new markets that will be created around the world.

Infrastructure investment can increase wages by creating jobs—thus tightening the labor market—and enhancing productivity. Infrastructure investments provide strong and well-paid jobs and productive assets that serve as the foundation for long-term economic competitiveness, increased prosperity, and a high quality of life. In comparison, failing to invest leads to deteriorating facilities, unpredictable service disruptions, congestion, and higher costs to businesses and households.

International cooperation on global demand, trade, financial stability, and corporate tax avoidance

Finally, we need a tougher international response to the trends outlined above—what might be called hardheaded internationalism. All countries and regions must come together in forums such as the G-20 to encourage macroeconomic coordination for sustainable global growth. While showing that they understand and can respond to voters' concerns about financial instability, immigration, and tax avoidance, governments in developed countries must stay open to the world, seek new trade deals and regional partnerships, and continue their commitment to a dynamic market economy.

On financial regulation and corporate taxation, new impetus is needed to move forward stalling efforts toward reform. On business taxation, greater international cooperation is needed to strike a fairer deal for the future and ensure that governments have a stable source of revenue to provide for a stronger, smarter, and fairer society.

Restoring the integrity of corporate taxation will require more than a simple reversal of the policies of the past 30 years. It will require governments to develop a taxation system that can withstand the pressures of a globalized economy, promote long-term investment, and provide a stable, fair, and predictable policy framework for businesses.

Chapter 3 outlines these policy responses in more detail.

Conclusion

Around the world, advanced economies are facing similar challenges as they grapple with the new realities of the global economy, technological change, and the long-term effects of a changing balance of economic power away from domestic workers and toward mobile, international corporations.

Left to their own devices, unfettered markets and trickle-down economics will lead to increasing levels of inequality, stagnating wages, and a hollowing out of decent, middle-income jobs. This outcome is morally wrong, economically myopic, and at fundamental odds with a democracy in which everyone quite reasonably asks for an equal chance to succeed.

The enduring response of progressives has been to find ways to share the gains of market dynamism broadly. To ensure that all of society's citizens have a stake in its prosperity, and therefore all of its citizens have a stake in its future. Absent a strong and effective progressive response, it is of little surprise that some countries are turning toward populism and insularity. But a better future is possible, one that combines openness with solidarity, dynamism with security, and innovation with equity.

The remainder of this report outlines these challenges and risks in more detail and sets out policy responses to secure sustainable growth by reforming our economies for the long-term, and thereby generating inclusive prosperity.

Endnotes

- 1 Calculation based on employment to population ratio for males ages 25–54. U.S. Bureau of Labor Statistics, “Labor Force Statistics from the Current Population Survey” (last accessed January 2015), available at <http://beta.bls.gov/dataViewer/view/timeseries/LNS12300061Q>.

Chapter 2

Analysis

Analysis

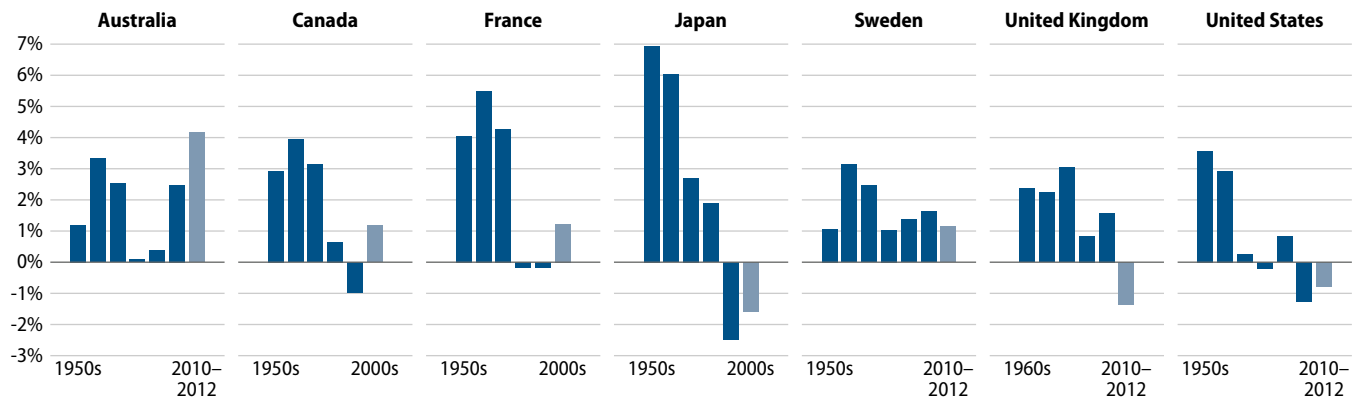
There are serious structural challenges facing advanced economies today: the changing economic environment, rising income inequality, and the move from crisis to recovery. These are large, systemic issues that threaten inclusive prosperity.

One way we can compare how advanced economies have coped with these challenges is to compare the income growth of their middle classes; we measured the average income of households in the bottom 90 percent of the income distribution. Middle-class household incomes, which grew rapidly from the end of World War II up until around 1980, are no longer growing rapidly for many advanced economies. Income growth has slowed for those in the middle or on the bottom. In some economies, such as the United States and the United Kingdom, the bottom 90 percent of incomes have even stagnated or declined in recent years. This trend is clear in Figure 2.1, which looks at middle-class income growth in seven countries across seven decades using data from the World Top Incomes Database. (This database is an international collaboration among dozens of economists managed by British economist Anthony Atkinson of Oxford and the London School of Economics, Facundo Alvaredo of Argentina's National Scientific and Technical Research Council, Thomas Piketty of the Paris School of Economics, and Emmanuel Saez of the University of California, Berkeley.¹) Some advanced economies, on the other hand, have maintained middle-class income growth in the 21st century.*

* Australia, Canada, and Sweden, for example, which are all represented on the Inclusive Prosperity Commission.

FIGURE 2.1

Bottom 90 percent average annual income growth rate in select advanced economies by decade



Note: Lighter shading indicates that significantly less than a full decade of data are available. Due to sporadic data availability, appropriate decades range from 9–11 years, and endpoints of decades may differ by 1–2 years. Source: Facundo Alvaredo and others, "The World Top Incomes Database," available at <http://topincomes.g-mond.parisschoolofeconomics.eu> (last accessed December 2014).

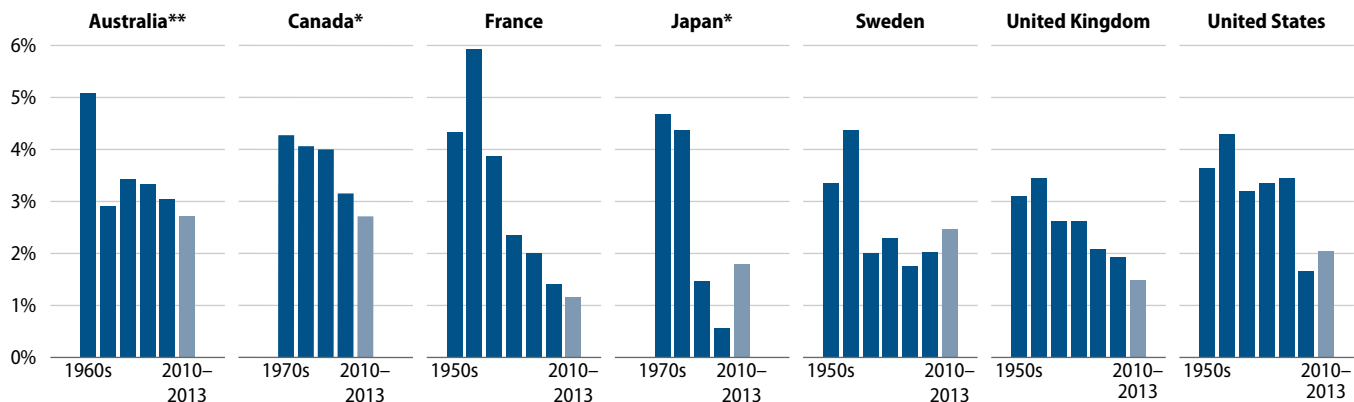
The slowdown in household income growth has several causes. First, income growth in many advanced economies has trended downward. Since the mid-1970s, gross domestic product, or GDP, growth in much of the eurozone has trended downward, as has growth in the United States and Japan. There are exceptions, such as in Sweden and Australia. This trend is easily visible in Figure 2.2, which reports data on GDP growth from the Organisation for Economic Co-operation and Development, or OECD, and U.S. national income accounts.² In some countries, slowing income growth has meant higher unemployment and underemployment, which has contributed to the slowdown in the growth of middle-class household incomes. In others, employment growth has returned but productivity has slowed, leading to the same outcomes.

In addition, markets have delivered increasingly unequal household incomes. There is an upward trend in market-based inequality, as measured by the Gini coefficient (a standard measure of income inequality), in economies as diverse as the United Kingdom, the United States, Germany, and Sweden. While the tax-and-transfer systems in many advanced economies have substantially moderated the increase in market-based inequality, they have not done so completely.

In recent decades, there has been rapid development of international trade and competition—the phenomenon of globalization. There also has been rapid and disruptive technological change, in the form of information and computer technology that is rapidly allowing machines to replace even complex forms of human work.

FIGURE 2.2

Average annual GDP growth rate in select advanced economies by decade



* OECD data not available before 1970

** OECD data not available before 1960

Note: Lighter shading indicates that significantly less than a full decade of data are available.

Source: Organisation for Economic Co-operation and Development, "Stat Extracts: Gross domestic product (GDP)," available at <http://stats.oecd.org/index.aspx?queryid=61429#> (last accessed December 2014). U.S. data from Federal Reserve Bank of Saint Louis, "Real Gross Domestic Product, Billions of Chained 2009 Dollars, Annual, Not Seasonally Adjusted," available at <http://research.stlouisfed.org/fred2/series/GDPC1> (last accessed January 2015).

This changed environment of course offers not just costs, but a host of new opportunities. With globalization comes the possibility of selling goods and services into a global rather than a domestic market and of buying products at lower costs or higher quality than domestic substitutes. Global competition encourages domestic innovation, which helps push developed countries further up the value chain. With technical change also comes the possibility of new products and services and the possibility for workers to enter new, potentially higher-paid forms of work.

At the same time, the forces of globalization and technical change have also put pressure on middle-income families, as new and lower-cost competitors enter markets and new skills become mandatory, not just optional, for the best-paying employment. These new realities clearly call for important adjustments to economic policy.

In this chapter, we examine more closely the effects of globalization, technical change, and declining worker power on the economic position of middle- and low-income earners. We also examine the effects of changes to labor-market institutions and in corporate investment behavior. We show that increased inequality has negative implications far beyond people’s finances. Inequality in income translates into inequality in longevity—that is, income is an increasingly

strong predictor of how long people live. Inequality also affects intergenerational mobility—how the income of a child’s parents determines his or her income as an adult. We show how increased inequality contributes to the problem of insufficient aggregate demand—too little spending by consumers and businesses to keep GDP at its capacity. And we also show how many countries are still recovering from the effects of the financial crisis. Poor policy choices have prolonged economic misery, exacerbated the outcomes outlined above, and could reduce long-run potential economic growth.

The changing economic environment

Today’s economy offers both new challenges and new opportunities to the middle class in advanced economies. Globalization and technology have made these countries more productive but have also introduced competition from low-wage countries. These changes are also creating downward pressure on wages that is increasingly moving up the income scale in developed countries. In many countries, the changing relationship between employers and employees has also reduced the voice of workers—whether in the form of “zero-hours” contracts in the United Kingdom or the decline of labor unions in the United States. And corporations have become increasingly focused on reporting short-term profits instead of delivering the long-term investments that will help our economies grow.

In this section, we spell out what each of these emerging trends means for most people in our countries.

Globalization has provided both benefits and competitive challenges

The world is increasingly global, nowhere more so than in our economic interactions. Over the past generation, technology has reduced the costs of transportation, automation, and communication dramatically. The result is a globalized economy that has far greater capital, product, supply-chain, knowledge, and labor-market mobility than ever before.

This globalized world economy has created enormous gains for people around the globe and for their standards of living. Reduced transportation and communication costs have allowed businesses to produce manufactured goods at new levels of scale and affordability, with savings from innovations and leaner firms passed

on to consumers in the form of lower prices and a broader range of increasing quality goods. New markets have opened as a result of unprecedented political and economic cooperation between nations, bringing opportunities to people and businesses in countries rich and poor alike. Most importantly, hundreds of millions of people have been lifted out of poverty, with some progress finally reaching even the poorest nations, though in regions of the world poverty still remains alarmingly high.³

The same technologies that businesses have used to move goods and ideas faster and more cheaply have also enabled people to communicate across vast distances with speed and ease. As of 2013, there were 93 mobile phone subscriptions worldwide for every 100 people.⁴ Even in sub-Saharan Africa and South Asia, which are home to much of the world's deepest poverty, there were more than two mobile subscriptions for every three people.⁵ This technology helps many of even the world's poorest people communicate across continents; it has lowered the risk of famine by linking up people across previously disparate markets and has played a major role in politically empowering citizens seeking democracy in even the most brutal regimes around the world. Important results of this increased globalization of trade, technology, and investment are the benefits flowing to consumers from lower prices and an increasing variety of goods. Economist C. Fred Bergsten estimates that such benefits from increased trade translated into an additional \$9,000 in inflation-adjusted income between 1945 and 2003 for the average American household.⁶

While such technologies have transformed people's lives in myriad ways, this report acknowledges these effects while detailing the trend of wage stagnation for much of the population across advanced economies.

No one should want to turn back the clock on the vast benefits of globalization. Yet the changing patterns of trade and investment also raise questions about the future direction of advanced economies and which places and kinds of industries will thrive and create jobs. Firms can now shop around the globe for the lowest labor costs, the places where workers lack basic rights, and the most receptive governments to low tax and regulatory levels. In particular industries, especially manufacturing, domestic employment and wage growth have been affected.⁷

A study by Massachusetts Institute of Technology economist David Autor and his co-authors shows that regions of the United States whose industries were more exposed to competition from China experienced greater employment

declines; Chinese import competition explains about one-quarter of the decline in U.S. manufacturing between 1990 and 2007.⁸ Another study by scholars at the University of Edinburgh and the U.S. Federal Reserve finds that the U.S. industries most exposed to import competition were also the industries where the share of income going to workers declined the most. Their study suggests that “increases in import exposure of U.S. businesses can explain about 3.3 percentage points of the 3.9 percentage point decline in the U.S. payroll share over the past quarter century.”⁹ Unemployment and the declining share of income going to workers produced by international competition present a substantial challenge to workers in advanced economies.

Unless public policy can help find answers to these questions, public support for open economic relationships between countries will diminish even more than it has already. And with the nature of technological change and the economic strategies of fast-growing developing countries, wage competition is expanding up the technological ladder. Both firms and workers are exposed to international competition across a wider range of industries and occupations—from textiles to aerospace and from call centers to advanced engineering. Even in the industries that still employ many workers in the United Kingdom and the United States, this foreign competition has hit workers hard.

Declining worker bargaining power, for example, appears to be a global trend. A job in many European countries can be offshored as easily as a job in the U.S. Midwest, which has been the case for workers across the manufacturing sector in high-wage countries. Yet nations that have robust minimum wages and protections for workers that empower their voice in the workplace have not seen such a strong divergence between worker productivity and worker pay. Indeed, Australia’s workers face the same global trends, yet its switch to collective bargaining over and above a strong set of minimum conditions has helped workers keep more of their productivity gains in take-home earnings.¹⁰

Technology is changing the nature of work

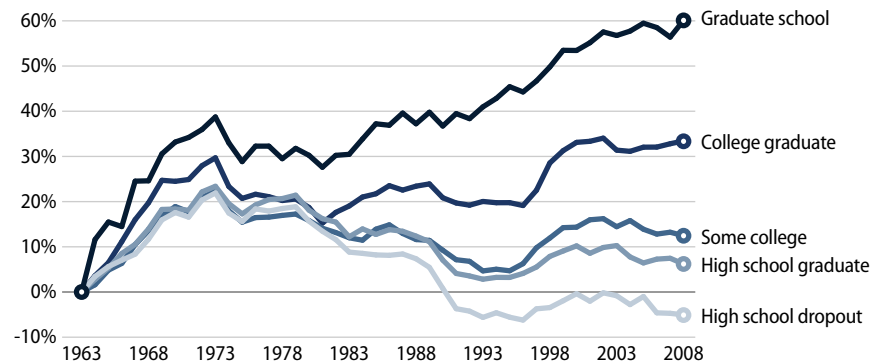
Alongside globalization, technology is also changing the nature of work at a rapid pace, and some believe workers are in a “race against the machine.” In their book of the same name, MIT economists Erik Brynjolfsson and Andrew McAfee argue that millions of workers are being left behind by the rapid digitalization of the economy.¹¹ This trend is unsurprising, as there is no reason to believe there will

be jobs for all people at socially acceptable wages, despite the rapid technological changes occurring around the globe.¹² New technology can complement labor or substitute for labor, and this is not the first time we have seen technological progress reduce employment opportunities. The rapid pace of innovation in computer automation of routine tasks has rightfully worried policymakers, as this scale of automation has little precedent in industrialized economies. Brynjolfsson and McAfee cite computer programs that instantly translate foreign languages and allow a single lawyer to do the work of 500 in the discovery process as examples of how machines can replace human jobs, not unlike how the ATM replaced the bank teller.

It is natural that technological evolution produces winners and losers. Our understanding of the skills-biased nature of technological progress has evolved over time. Cross-country academic work in this arena demonstrated that growth in new technologies was correlated with reduced demand for unskilled laborers.¹³

Harvard labor economists Claudia Goldin and Lawrence Katz have characterized unemployment and wage stagnation that result from technological progress as a race between technology and education instead of a race against the machine. They argue that since technological progress inherently favors skilled workers, countries must increase the number of skilled workers via human capital investment to prevent rising inequality. They view the recent rise in inequality, particularly in the United States, as a failure to invest in educational institutions.¹⁴ MIT economists Daron Acemoglu and David Autor provide evidence for the race between education and technology by demonstrating that over the past four decades, wages for U.S. workers without college degrees have fallen, and wages for workers with graduate training have risen dramatically.¹⁵ International evidence also shows the same trend of a growing earnings gap between high- and low-skilled workers despite a very large rise in the supply of highly educated labor (which should reduce the gap).¹⁶ There is some evidence, however, that differences in skill level and technological change do not fully explain the growing earnings inequality;¹⁷ one of the most prominent researchers on employment and wage polarization, Autor, has concluded that while the employment polarization hypothesis fits the U.S. data in the 1990s, trends from the past 15 years are at odds with this explanation.¹⁸

FIGURE 2.3
Changes in wages for full-time, full-year male U.S. workers, 1963–2008



Source: Daron Acemoglu and David Autor, "Skills Tasks and Technologies: Implications for Employment and Earnings" (Cambridge, MA: National Bureau of Economic Research, 2011), Figure 4. Data files available at <http://economics.mit.edu/faculty/dautor/data/acemoglu/>.

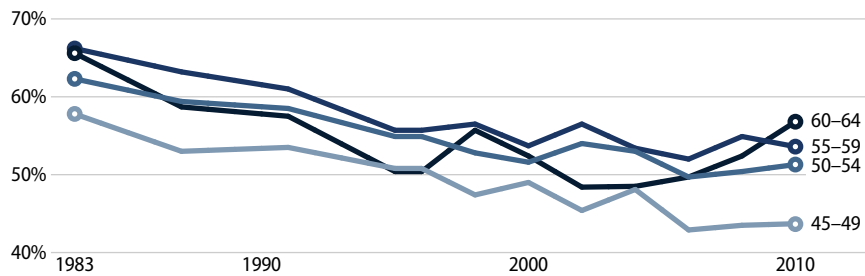
Across many developed economies, changing skill requirements appear to be lowering the number of middle-income jobs. This has produced polarized employment growth, characterized by more rapid job creation in highly skilled and highly paid jobs—or in low-skilled, low-paid jobs—and relatively less job creation in medium-skill and medium-wage jobs. A study of the 16 countries in the European Union by economists Maarten Goos, Alan Manning, and Anna Salomons finds that between 1993 and 2006, high-wage occupations increased their share of employment in 13 of the 16 countries, and low-wage occupations increased their share in 11 of the 16 countries. In all 16 countries, low-wage occupations increased in size relative to middle-wage occupations.¹⁹ The U.K. government expects this trend to continue at least through 2022 with growth in highly skilled, white collar occupations and some growth in employment for a number of less skilled occupations but further job losses for both skilled and semi-skilled manual roles and administrative, clerical, and secretarial jobs.²⁰

Frequent job turnover also reduces the incentive for firms to invest in their workers. In the United States, for example, worker tenure fell consistently in the decades leading up to the Great Recession. Long-term relationships with workers provide firms with the incentives to invest in training their workers.²¹ Because investing in a worker's productivity makes the firm more productive, the incentive for on-the-job training falls with declining job tenure.

FIGURE 2.4

Worker tenure is falling in the United States

Percentage of male wage and salary workers with 10 or more years of tenure, by age, 1983–2010



Source: Bureau of Labor Statistics, *Employee Tenure* (U.S. Department of Labor, 1983–2010).

Today, firms face different incentives for training workers than they once did, such as turnover, and some countries lack the labor-market institutions, such as apprenticeships and labor-management partnerships, to overcome these challenges. As a result, the skill investments that have driven growth in the United States for generations have disappeared. The scale of this decline is dramatic: According to one expert, “U.S. companies are investing about half the amount in training today as a share of GDP compared to a decade ago.”²²

In the United Kingdom, the proportion of the working-age population enrolled in education or receiving training fell by 3.8 percentage points from 2010 to 2013—among the worst in Europe. With automation at home and the tremendous growth of industrialization, as well as skilled workers in low-wage jobs, every dollar spent on training is a potentially stranded investment if a firm relocates to a lower-wage location or if the relationship ends for another reason. Not only do firms have to contend with the increased possibility of well-trained workers leaving—due to the decline of the relationships and the contracts that mitigated the risk—but firms now correctly expect that relationships with workers will be shorter as well. The end result is a system that discourages workers and firms from making joint investments in training that were customary a generation ago and that leaves our economies with less human capital.

The key to minimizing the downside of both globalization and technological change is a policy agenda of a race to the top, instead of a race to the bottom—an agenda that ensures that developed countries produce goods that continue to rise up the value chain toward products with higher value added and that this rise benefits everyone. Policies to improve skills for all, to ensure that a nation’s infrastructure meets its needs, and to encourage innovation are all essential to driving growth and a more inclusive prosperity. Chapter 3 covers these areas in more detail.

Labor-market institutions have changed in several advanced economies

The rise of the sharing economy and other changes

The structure of the employment relationship in some advanced countries has been fundamentally altered by legal and other changes. Firms have created flexibility for themselves while weakening existing worker protections. There has been a rise in non-standard employment such as part-time work, on-call work, temporary employment, and self-employment, as well as significant growth in subcontracted work; this so-called race to the bottom allows firms to hire labor without committing to long-term employment relationships or to providing the benefits that were historically the norm. More recently, technology has allowed a sharing economy to develop in the United States; many of these jobs offer flexibility to workers, many of whom are working a second job and using it to build income or are parents looking for flexible work schedules. At the same time, when these jobs are the only source of income for workers and they provide no benefits, that leaves workers or the state to pay these costs.

In the United States, both established firms, such as Wal-Mart and Amazon, as well as startups, such as Uber, TaskRabbit, and other participants in the gig economy of work ordered on apps, have embraced subcontractors as a way to obtain labor on demand. Many of these arrangements are cast as contracted transactions between service providers and firms but represent traditional work for pay but without standard worker protections.

A recent *New York Times* article on workers in the gig economy notes that while many people now rely on services such as Airbnb, TaskRabbit, or others to generate income, the workers providing these on-demand services have dramatically less power in these arrangements than in typical employment.²³ The innovation

embodied in the sharing economy is a major source of economic growth, providing benefits to consumers and flexibility to workers who need it. These startups will be future engines of growth for advanced economies, so it is important to ensure that the winners succeed on the strength of their innovative products and not at the expense of their workers.

The rise of independent contractors is not unique to the United States. It closely mirrors the zero-hours contracts that have become more prevalent in the United Kingdom since the financial crisis. These contracts provide the employer discretion to vary employees' hours from full time to no hours; the contracts tie individuals to a firm but do not guarantee work, and individuals are paid only for actual hours of work offered by the employer and carried out by the employee.

There are two major dynamics at work in this changing employer-employee relationship. First, firms have structured themselves to be capable of growing quickly by reducing their commitments to employees. By reducing the need to provide a stable, predictable income for the people doing the work, these companies free up capital and reduce overhead costs. Second, these firms also reduce costs by avoiding typical, minimum-mandated corporate expenses such as employment taxes and benefits.

Some economists believe zero-hours contracts can suit some people by making it easier for families to maintain attachment to the labor force in the face of major life events, such as a debilitating illness or the need to care for a disabled relative or new child.²⁴ However, others suggest that the growth of zero-hours contracts during an unusually weak labor market is evidence of the decreased bargaining power of workers. For workers, workplace flexibility is voluntary and beneficial, while workplace volatility is not voluntary and can bring income volatility and added stress into daily life. Many workers in these arrangements are subjected to exploitative employment conditions, with little warning about when and how much they will work in a given week. These workers live their lives "uncertain as to whether a sufficient number of working hours can be secured each week to pay the bills and often fearful that any sign of inflexibility or unwillingness to work will lead to future hours being withdrawn as a penalty."²⁵ There is a need for far greater information and insights on the use of these contracts in order to establish best practices and to make legal or regulatory changes to discourage abuse.

It is certainly telling that these arrangements have grown rapidly in a slack labor market, where bargaining power has tipped in favor of employers. The rising use of zero-hours contracts has been the subject of much criticism in the United Kingdom, where the use of these workers prompted a parliamentary review.²⁶

Worker power has declined, particularly in the United States

Collective bargaining is an important contributor to inclusiveness in advanced economies; in the United States, it plays a significant role in reducing wage inequality. There is a union wage premium, which can be substantial and which tends to be higher for low- and middle-income workers.²⁷ A recent study estimated that the wage premium for workers in the middle quintile of the U.S. wage distribution at 20 percent.²⁸

In many advanced economies, the coverage rate of collective bargaining agreements—that is, the share of workers whose terms of employment are affected by agreements negotiated by unions and employers—is substantial. The average coverage rate of the Organisation for Economic Co-operation and Development is 54 percent; the range of coverage within the OECD goes from 6 percent to 99 percent.²⁹ Union density, or the share of workers who are members of unions, averages 28 percent, and the range goes from slightly more than 4 percent to 79 percent.

There is a difference between coverage and density because in many advanced economies “multi-employer bargaining and public policies extending the negotiated contract to nonorganized firms” guarantee coverage rates in excess of density rates.³⁰ As a consequence, there are advanced economies with low density and high coverage.

Expanding the benefits of collective bargaining in the United States would help reverse the trend toward wage inequality for U.S. middle- and lower-income workers; even modest institutional changes would help empower workers to do so. For example, meaningful labor law reform and the promotion of multiemployer or industry-wide bargaining would be an important breakthrough because individual employers paying good wages would no longer be disadvantaged by competing with low-wage employers.

Corporate behavior has shifted toward short-termism

An additional reason for the absence of inclusive prosperity is the changing nature of corporate behavior. Business leaders,³¹ government officials,³² and academics³³ have pointed out that corporations have shifted their traditional focus on long-term profit maximization to maximizing short-term stock-market valuations.³⁴ One reason that economists have advanced for this transition to corporate short-termism is the overwhelming shift to stock-market-based compensation for CEOs and other highly compensated executives at publicly traded corporations.³⁵

The effects of short-termism are damaging to the economy as a whole. A firm that invests for the long term will make more investments in future productivity, whether that's developing lifesaving medicine; building or buying newer, more efficient machinery; or paying for training for its workforce. All of these investments show up immediately as expenses on the balance sheet and reduce profits in the current quarter but raise future productivity of the firm. Incentivizing a continuing short-term focus lowers future output, reduces long-term competitiveness, and diminishes future worker productivity and the higher wages that it can bring.

The shift to large equity-based compensation practices is a logical outcome of the shareholder-value movement, which purports that the share price of a publicly traded firm is an accurate market valuation of how well it is managed. In principle, tying executive pay to market valuations aligns the incentives of managers and shareholders,³⁶ though experience suggests it is not so simple, and the shift to equity-based pay has caused management to devote resources to maximizing short-term share prices at the expense of the long-term value of the firm.

A testable prediction of this theory is that firms where managers and owners have similar information and incentives will be more responsive to market forces and more profitable in the long run. A recent study that compares similar privately and publicly held firms found that private firms invest nearly 10 percent of total assets annually, about twice as much as public firms, which invest closer to 4 percent of assets.³⁷ Interestingly, the study's authors note that not only do private firms invest more, they invest better, responding strongly to changes in investment opportunities, while public firms barely respond at all. The analysis notes that while different circumstances give managers incentives to overinvest or underinvest, the more common scenario is for shareholders to not know how much the firm should optimally invest. When shareholders lack that information, a manager can give the impression that the firm's long-run profitability is greater than it really is by under-

investing.³⁸ This finding echoes earlier work by MIT and Harvard economists James Poterba and Lawrence H. Summers, who found that public firm managers prefer investment projects with shorter time horizons, a rational response to the belief that stock-market investors fail to properly value long-term projects. Recent research that compares the planning horizons of publicly held companies to privately held firms confirms their results.³⁹

When discussing apparent market short-termism, the executives who lead firms are easy targets, but the nature of publicly traded companies also contributes to their behavior. Because some activist investors who are interested in short-term results are able to take large positions in firms rapidly and drive change from the outside, a CEO cannot expect to be able to make long-term investments that are in the best interest of the company without outside interference.⁴⁰ It is true that publicly traded firms appear to be more driven by short-term concerns than privately held firms, but this is as likely a result of the different constraints these firms face as it is of short-sightedness on the part of their executives.

While much of the literature on executive pay follows the short-term principal-agent framework explored above, another branch considers that executives can engage in actions to deliberately enrich themselves at the expense of the firm.

One clear finding of this literature is that the devil is in the details of executive pay packages. Option plans for these packages have been designed, and largely continue to be designed, in ways that enable executives to make considerable gains from temporary spikes in a company's stock price, even when long-term stock performance is poor. For example, a recent paper from Alex Edmans and co-authors finds that in the months when a CEO's stock options in the company vest, he or she chooses to disclose news that can boost the company's share price and sell the stock at a high.⁴¹ This indicates that stock options are enabling some CEOs to game the system. The problem is that incentives between CEOs and shareholders are aligned during a long vesting period, but when the options are about to vest and CEOs can cash out, they have an incentive to enrich themselves at the expense of other investors. Stock options that cannot be sold quickly and a fuller consideration of restrictions on additional financial activity by executives—such as restricting hedging activities and forms of diversification significantly—would be needed before equity-based pay can align long-run incentives among executives and key stakeholders in firms.

With the benefit of experience in understanding the difficulty of structuring equity-based pay plans to properly align incentives, the net social benefits of large equity-based executive pay plans are surely less favorable than they appeared to be in the 1990s. Certainly, this questions the wisdom of allowing large U.S. pay packages—often in the form of stock options or dividends—to be deducted from corporate tax obligations simply because they are incentive based. Indeed, many have questioned whether stock-option compensation packages for C-suites have helped fuel the increased number of companies investing corporate profits in share buybacks, which leads to a rise in stock price and therefore increased C-suite compensation.⁴²

As income inequality has increased, the tax systems in some advanced economies have become less progressive

Historically, progressive taxation has limited the concentration of income and wealth. It has also provided needed revenue for social spending. However, the progressivity of tax systems has declined in some advanced economies over the past few decades, with the result being that high-income households and corporations now face lower effective tax rates. As Thomas Piketty has emphasized, progressive taxation of income and wealth can greatly reduce inequality in market economies.⁴³

In the United States, a decades-long accumulation of tax exemptions, deductions, and exclusions has helped reduce the effective tax rates on high-income households and corporations. These provisions in the tax code—sometimes referred to as “tax expenditures”—shelter significant amounts of income and wealth from normal taxation, contributing to growing income and wealth inequality.⁴⁴

Eliminating the tax rules that shelter high-income households and corporations would raise their effective tax rates, make the tax code more progressive, and avoid the waste created by strategies for tax avoidance. Looking across countries, Piketty, Emmanuel Saez, and Stefanie Stantcheva note that falling top tax rates are correlated with CEO pay increases, even after controlling for firm scale, profitability, and other factors that indicate firms are well run.⁴⁵ In other words, CEOs’ pay rises when top-end effective tax rates fall—regardless of how well CEOs actually perform. The authors note that high-ability individuals can bargain over wages, and lower top-end tax rates make it more profitable for executives to seek a larger share of a firm’s profits as compensation.

Examples of rules allowing sheltering are discussed in the text box.

Corporate taxes: Earnings stripping

The United States taxes income earned by U.S. businesses under a worldwide system.⁴⁶ Under this system, tax is owed to the United States regardless of whether the income is earned in Alabama or Albania. However, U.S. multinational corporations are also offered the option to defer taxes owed on profits earned by their foreign subsidiaries. Taxes can be deferred on these profits until the foreign subsidiary repatriates the earnings back to its U.S. parent company.⁴⁷ But while those foreign profits are considered offshore for tax purposes, companies often place those profits in U.S. bank accounts, where they are able to earn interest and circulate through the U.S. economy.⁴⁸ The deferral of taxes on foreign corporate income is the largest tax expenditure in the corporate tax code and is projected to cost the United States more than \$80 billion per year.⁴⁹

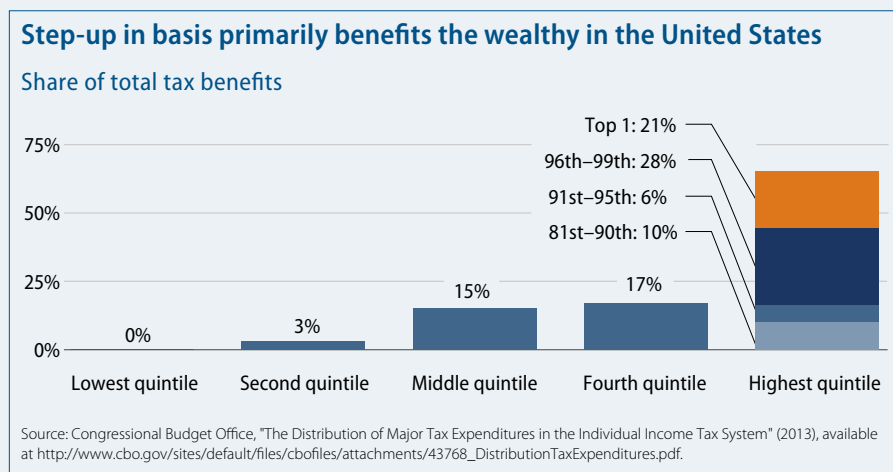
Deferral creates an incentive to move profits to foreign subsidiaries, especially those with low corporate tax rates, in order to delay when taxes are due in the United States. While some profits may be in offshore locations for legitimate business reasons, other profits earned domestically are being artificially shifted offshore for tax purposes. This explains why 40 percent of all foreign profits for U.S. corporations in 2011 were booked in Bermuda, Switzerland, Luxembourg, Ireland, and the Netherlands.⁵⁰ These five countries are often referred to as tax havens because of their extremely low tax rates.⁵¹

U.S. multinationals have clever ways of stripping earnings from their U.S. books and shifting those earnings to their foreign subsidiaries. One common way to do this is by maximizing debt held in the United States. The interest on that debt can be deducted as a business expense and thus reduce the U.S. company's taxable income. Corporations are generally allowed to borrow money in the United States to finance foreign operations and then deduct the interest costs from their U.S. taxable income immediately, even though their foreign income is not taxed until it is brought back into the United States.⁵² By changing the rules on deferring interest deductions, this source of base erosion could be limited.⁵³

Personal taxes: Inherited wealth 'step-up in basis'

In the United States, a provision of the tax code known as step-up in basis is a direct subsidy for inherited wealth. When an asset is sold, the capital gain is the sales price minus the seller's basis in the asset, with the basis usually equaling the price that the seller originally paid.⁵⁴ For inherited property, however, the basis is generally the fair-market value of the asset on the date the previous owner of the asset died.⁵⁵ Calculating an heir's basis in an asset using its more recent value when the previous owner died, instead of its original cost, is called a step-up in basis.

Combined with the United States' generous estate tax structure, the step-up in basis rule creates very low effective tax rates on inherited wealth. The Congressional Budget Office estimates that the step-up in basis rule will reduce federal revenues by \$644 billion over 10 years, with 21 percent of that subsidy going to the top 1 percent of income earners.⁵⁶



Step-up in basis is a particularly valuable subsidy for the wealthiest estates. A study published by the Federal Reserve estimates that unrealized capital gains comprise 55 percent of the total value of estates worth more than \$100 million.⁵⁷

The negative effects of inequality

As a result of many of the trends mentioned above, income inequality has grown across most advanced economies over the past few decades. The growth of inequality is all the more striking given the increasing productivity of workers; however, the incomes of the vast majority of households have not grown alongside their productivity. The top 1 percent is receiving an increasing share of market income in many advanced economies, but market income has also grown more unequal among the bottom 99 percent. Even net income—income after taxes and transfers from social insurance programs—has become more unequal in many countries. Rising income inequality reduces economic growth by reducing consumption, makes the consequences of the birth lottery more important, and even increases inequality of life expectancy.

This section explores the trend of increasing inequality in the developed world and its consequences.

Trends in income inequality

Decoupling of household income and productivity growth

The pretax incomes of middle-class households in several important advanced economies—including the United States, the United Kingdom, and Japan—have exhibited declining or stagnant growth rates in recent years. (see Figure 2.1)

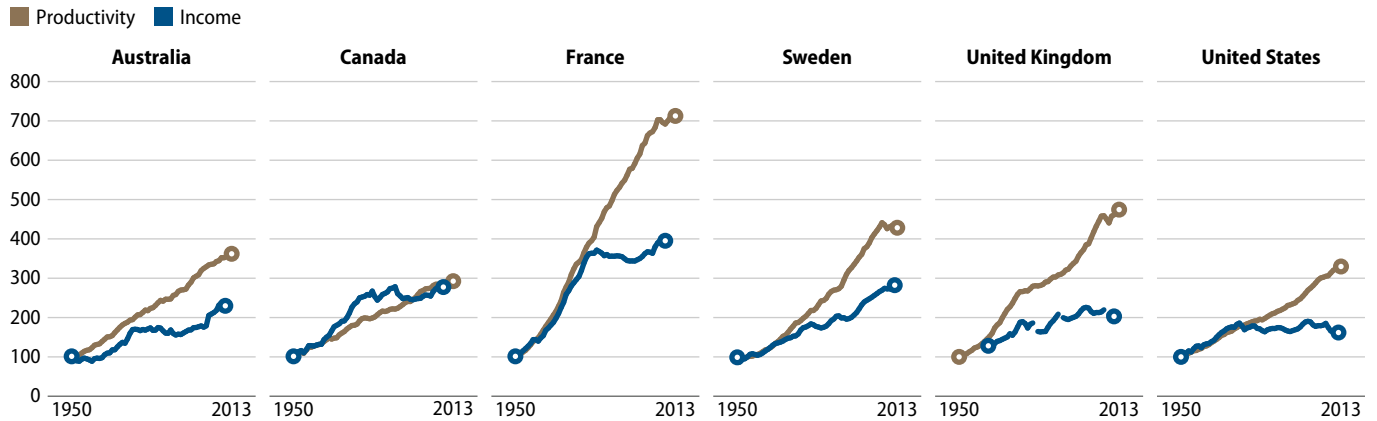
Figure 2.8 displays the average market household income of the bottom 90 percent of the population along with worker productivity growth in seven advanced economies.⁵⁸ The two stayed in lockstep until the 1970s and 1980s, when they began to diverge in every country except for Canada.

Slow household income growth is especially disturbing when we remember that households are supplying more labor—specifically, female labor—than they did 30 years ago. In the United States, for example, the share of mothers who work full time, year round, rose from 27 percent to 46 percent from 1979 to 2007. Indeed, the median annual hours worked by women rose by 739 hours between 1979 and

FIGURE 2.8

Productivity and average income growth for the bottom 90 percent in select advanced economies, 1950–2013

Series indexed to 1950=100



Source: Adapted from Jason Furman, "Global Lessons for Inclusive Growth" (Dublin: The Institute of International and European Affairs, 2014), available at http://www.whitehouse.gov/sites/default/files/docs/global_lessons_for_inclusive_growth_iiea_jf.pdf. Income data from Facundo Alvaredo and others, "The World Top Incomes Database," available at <http://topincomes.g-mond.parisschoolofeconomics.eu> (last accessed December 2014). Productivity data from The Conference Board, "Total Economy Database" (2014), available at <http://www.conference-board.org/data/economydatabase>.

2012—the equivalent of 18 additional 40-hour weeks.⁵⁹ Now that most households no longer have an extra adult to send into the labor force, median market incomes may fall even more quickly in the United States and other countries where market incomes have not grown.⁶⁰

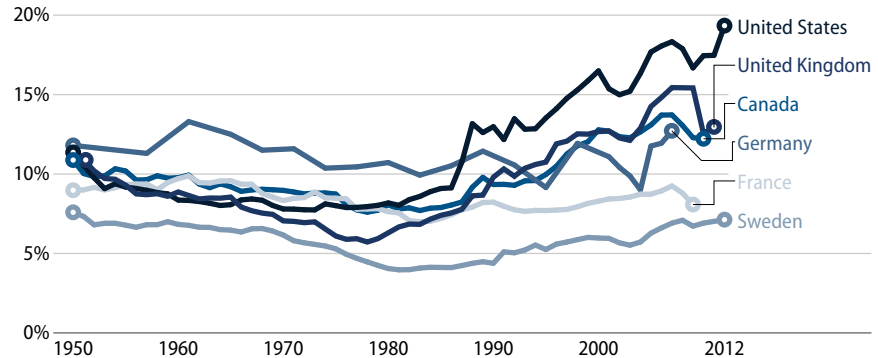
Growing share of market incomes going to the top

While the incomes of the top 10 percent of the income distribution have risen sharply over the past 20 years in many advanced economies, the gains have been the greatest for the upper 1 percent. Figure 2.9 shows different shares of income received by the top 1 percent; nearly all countries experienced a rise in the share after the 1980s. The primary drivers of this income growth at the very top have been an increase in capital income—returns from investments—and large increases in labor income—salaries and bonuses—for top corporate executives and workers in the financial sector in the United States.⁶¹

FIGURE 2.9

The top 1 percent's share of income has grown in select advanced economies since the 1980s

Percent of national income received by the top 1 percent, 1950–2012



Note: 1 percent share excludes capital gains for every country except Germany, which does include capital gains. Linear interpolation is used where gaps in data exist.

Source: Facundo Alvaredo and others, "The World Top Incomes Database," available at <http://topincomes.g-mond.parisschoolofeconomics.eu> (last accessed December 2014).

While the increasing share of income held by the top 1 percent is striking and has received a good deal of attention, there has also been increasing market income inequality within the top 1 percent, as well as within the bottom 99 percent. The ratio of the earnings of the 90th percentile to the earnings of the 10th percentile—a method of measuring inequality among the bottom 99 percent—grew in all but 1 of the 12 advanced economies studied by David Autor over the period between 1980 and 2011. Starkly, the United States and the United Kingdom—which began the period with relatively high ratios—also had the highest growth in the ratios, in spite of the success of both the Clinton and Blair administrations in slowing inequality growth in the years around the turn of the century.⁶²

Tax-and-transfer systems struggle to fight increased inequality

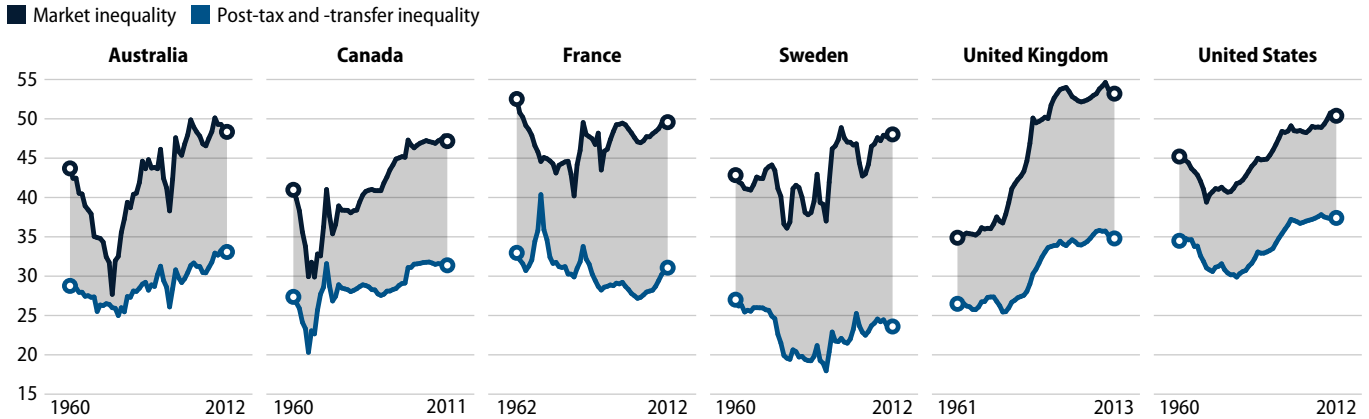
Governments have historically addressed inequality through public policy—primarily progressive taxes and social insurance programs (also known as transfers) such as public retirement benefits. These programs have been very effective in mitigating inequality for generations.⁶³ As middle-class income growth has stalled and overall inequality in market incomes has increased, these tax-and-transfer systems have made net income—in other words, income after taxes and transfers—more equal than market income—or income before taxes and transfers. Nevertheless,

net income inequality in many advanced economies has also increased over the past few decades. Figure 2.10 displays market and net income inequality as measured by a standard measure of inequality (the Gini coefficient) for a group of 20 advanced economies over the period between 1985 and 2005. Each of these economies saw an increase in market inequality over this period, though some countries, such as the United Kingdom, were successful in reversing the trend for market income in the second decade.⁶⁴ Importantly, all but five countries saw an increase in net income inequality, illustrating both the ability of tax-and-transfer systems to counteract the rising level of market inequality and the willingness of many governments to allow net income inequality to increase.

Where countries have been less successful in addressing inequality in net income, they may wish to pursue tax reforms including reducing the rates at the bottom or increasing them at the top. The introduction of taxes on wealth, such as very-high-value properties, can also ensure that inequalities are addressed.

FIGURE 2.10
Inequality in select advanced economies, 1960–2012

Market and post-tax and -transfer Gini coefficients in select advanced economies



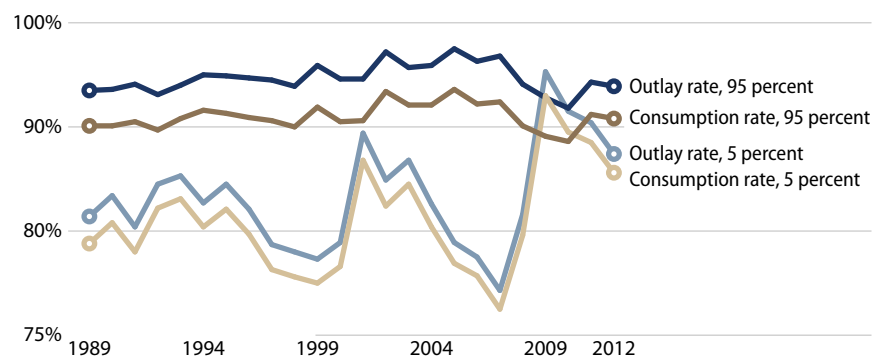
Source: Frederick Solt, "The Standardized World Income Inequality Database." Working paper (The University of Iowa, 2014), available at <http://myweb.uiowa.edu/fsolt/swiid/swiid.html>.

Increasing income inequality may affect long-term aggregate demand in advanced economies

Inequality not only means that the middle class enjoys fewer of the gains from economic growth—it also means there are fewer gains to be had for everyone because of the reduction in economic growth.

There is good reason to believe that increasing concentration of income may reduce aggregate demand in the long term because the wealthy spend a lower fraction of their incomes than middle- and lower-income groups. Using data for the U.S. economy, Barry Cynamon and Steven Fazzari show that higher-income households typically consume a smaller fraction of disposable income than middle- and lower-income groups do. (see Figure 2.11)⁶⁵ They find that the share of disposable income consumed by the top 5 percent of households was substantially below that of the bottom 95 percent during the period from 1989 to 2008. During the financial crisis, the top 5 percent did raise its consumption rate as it had in previous recessions, but its consumption rate was falling between 2010 and 2012 and will likely continue to fall as it did during other economic expansions. The consumption rate of the bottom 95 percent, on the other hand, declined because it could no longer borrow as it did in the 2000s, and its overall consumption had not recovered to its pre-2008 level as of 2012.⁶⁶ The implication is that greater income inequality has the potential to reduce the overall consumption at any given level of national income, reducing overall demand.

FIGURE 2.11
U.S. disaggregated personal consumption and outlay rates, 1989–2012



Source: Barry Z. Cynamon and Steven M. Fazzari, "Inequality, the Great Recession, and Slow Recovery." Working paper (Washington University in St. Louis, 2014), Figure 5, available at http://pages.wustl.edu/files/pages/imce/fazz/cyn-fazz_consinequ_130113.pdf. Data available upon request.

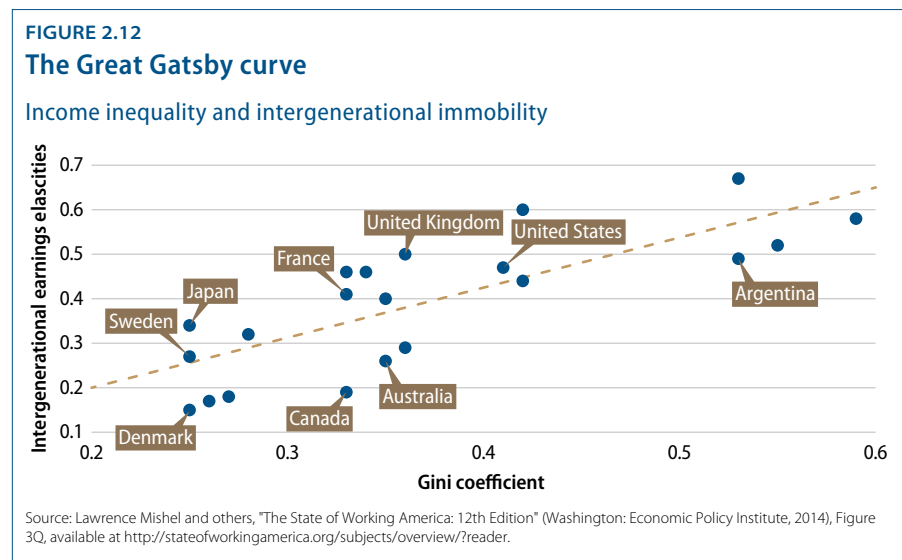
Recent work by International Monetary Fund, or IMF, researchers is consistent with such an effect. Using data on many economies over a 50-year period, the researchers found that higher levels of net income inequality—after taxes and transfers—are negatively correlated with growth in gross domestic product per person. They also found that the likelihood that a country’s economic expansion will end is positively correlated with its the level of net income inequality.⁶⁷ The Organisation for Economic Co-operation and Development has recently concluded that reducing income inequality would boost economic growth, finding that countries where income inequality is decreasing grow faster than those with rising inequality.⁶⁸ The single-biggest effect on growth is the widening gap between the lower middle class and poor households compared with the rest of society.

Changes in income distribution are affecting household welfare in profound ways

Inequality is about more than dollars, pounds, and euros—countries with more inequality are also countries with less opportunity for those with low and middle incomes. And inequality of income translates into perhaps the most disturbing inequality of all—inequality of life expectancy.

Intergenerational mobility

One of the big concerns about growing inequality is how it affects intergenerational mobility—whether the growing distance between different income groups will reduce the ability of someone to ascend to a higher income group based on education and hard work.⁶⁹ Miles Corak shows a strong international relationship between income inequality and intergenerational immobility—the relationship between parents’ and children’s earnings, known as “intergenerational elasticity.” Alan Krueger has dubbed this the “Great Gatsby” curve; a Center for American Progress re-creation of it is displayed in Figure 2.12. Note the low amount of immobility in the equal Nordic countries and the high amount of immobility in the unequal United States and the United Kingdom.



Economists Raj Chetty, Nathaniel Hendren, Patrick Kline, and Emmanuel Saez have developed a fascinating new dataset for measuring intergenerational mobility in the United States, using parents’ and children’s tax records to estimate the relationship between where in the national earnings distribution a child is born into and where in the distribution a child ends up.⁷⁰ Measuring intergenerational mobility among 1973–1993 birth cohorts, they show no noticeable change in

intergenerational mobility over a time when inequality skyrocketed. That is, children entering the labor market today have the same chances of moving up the income distribution as children born in the 1970s.⁷¹ Because inequality has risen over this period, however, the unfair consequences of the birth lottery—the parents to whom a child is born—are larger today than in the past. A child born into the top 1 percent in 1993 was luckier than a child born into the top 1 percent in 1971, since that child is just as likely to remain at the top but now enjoys a much larger share of the economic pie.

In the United Kingdom, the link between background and educational attainment is even stronger than in the United States. According to the OECD, the relationship between parental and child income in the United Kingdom is more than two times stronger than in Canada, Australia, or Finland. The authors of a recent government-commissioned report on social mobility have suggested that this means that policy can make a difference.⁷² Finland shows what kind of difference policy can make: Finnish children born in the 1950s showed much greater mobility than children born in the 1930s, with most of the increased mobility resulting from increased education.⁷³

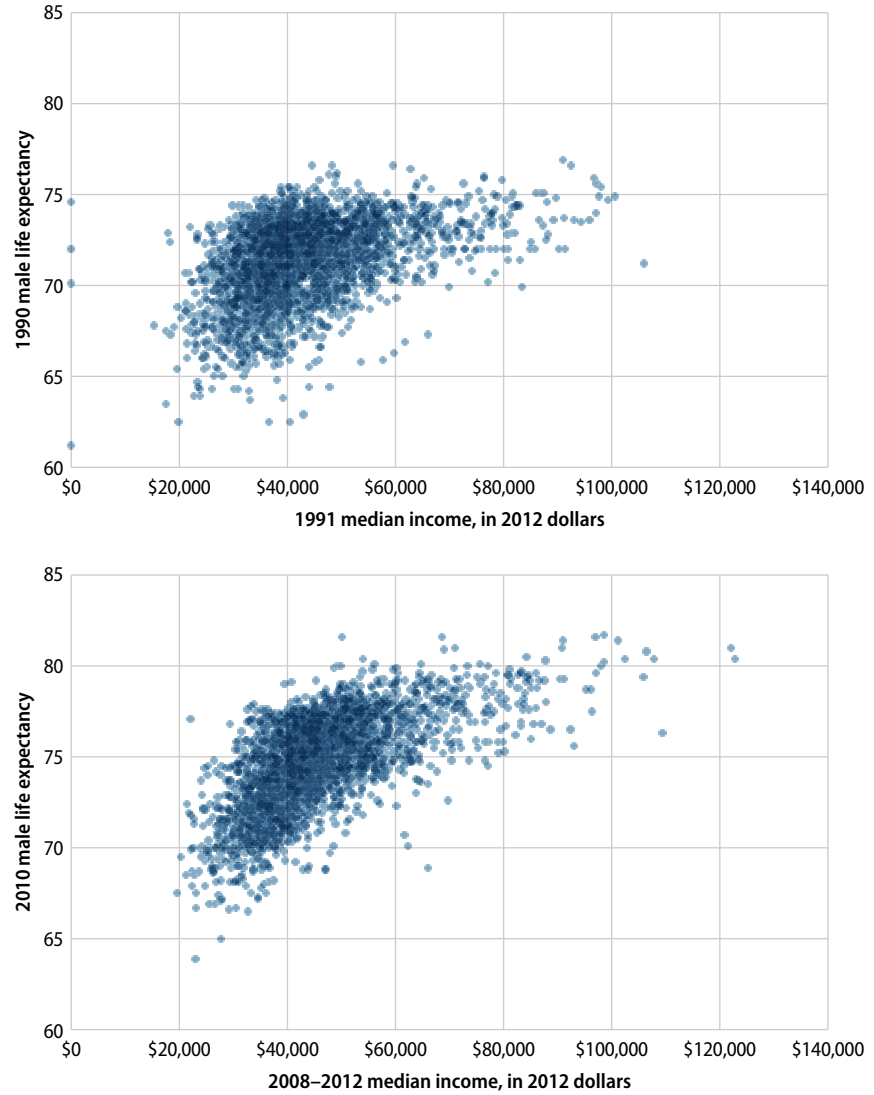
Life expectancy

Too often, the question of income inequality is phrased in terms of wants rather than needs. Not only are we now seeing that inequality is being perpetuated through reduced income mobility, we are also seeing income inequality reflected in key indicators of welfare. Perhaps nowhere is this more striking than in the United States, where today, income is a stronger predictor of life expectancy than it was a generation ago.

A recent study of longevity in the United States found that not only is life expectancy more correlated with income than in the past but that gains in longevity have nearly passed by lower income Americans altogether. American males with less than a high school education “had life expectancies not much better than those of all adults in the 1950s and 1960s.”⁷⁴ Further analysis of these data shows that county-level income is correlated with life expectancy and that this correlation is much stronger today than it was a generation ago.

FIGURE 2.13

U.S. median household income and male life expectancy, by county, 1990 and today



Source: Christopher Murray, Alan Lopez, and Miriam Alvarado, "The state of US health, 1990–2010: burden of diseases, injuries, and risk factors" (Institute for Health Metrics and Evaluation, 2013), available at <http://www.healthdata.org/research-article/state-us-health-1990-2010-burden-diseases-injuries-and-risk-factors/>; Bureau of the Census, *Table C1. Median Household Income by County: 1969, 1979, 1989* (U.S. Department of Commerce, 1970, 1980, and 1990), available at <http://www.census.gov/hhes/www/income/data/historical/county/county1.html>; American Community Survey, *5-year Estimates* (U.S. Department of Commerce, 2008–2012), available at <http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml>; assistance finding raw data from and figure design based on Alicia Parlapiano, "Where Income Is Higher, Life Spans Are Longer," *The New York Times*, March 15, 2014, available at <http://www.nytimes.com/interactive/2014/03/15/business/higher-income-longer-lives.html>.

Moving from crisis to recovery

A final challenge confronting advanced economies is the recovery from the financial crisis. Many countries, especially in the eurozone, are still struggling to move past the challenges of debt, deleveraging, and possible deflation. There is also increasing evidence that today's low growth may reduce future growth by reducing countries' potential to produce goods and services. And trends such as rising income inequality and aging may even be producing a secular stagnation that makes it difficult to reach full employment absent a credit bubble.

Advanced economies are struggling with the effects of the financial crisis

Developed economies are still burdened by the aftermath of the financial crisis. In addition to the profound economic changes and challenges already identified, advanced economies are faced with the task of completing the recovery from the financial crisis that began in 2008. There are certainly strong common factors across these economies. As economists such as Richard Koo, Paul Krugman, Atif Mian, and Amir Sufi have argued, the crisis has produced a cascade of “balance sheet” recessions, in which the collapse of an asset bubble—such as the U.S. housing market between 2005 and 2007—leaves governments or households with a high level of debt. Their need to repay that debt leaves them with less money to spend on other goods and services, constraining demand and reducing gross domestic product.⁷⁵

The specific contours of the difficulties with recovery differ across countries and regions. In the eurozone, for example, low levels of demand have put the entire region on the cusp of deflation. In the absence of currency depreciation, peripheral eurozone economies that experienced asset bubbles fueled by capital inflows, such as Spain and Ireland, have been forced into severe fiscal austerity that has produced mass unemployment. This has put downward pressure on wages and prices in these economies, in the hope that the resulting change in relative prices would improve their net trade balances and reassure capital markets about the value of their debt. Core eurozone economies such as Germany, while never in the dire position of the peripheral economies, have also pursued fiscal austerity. In addition, while the European Central Bank now seeks aggressively to address the aggregate demand problem in the eurozone, its approach has been inconsistent,

raising policy interest rates in 2011, and somewhat late to introduce monetary stimulus measures similar to quantitative easing. As a result, employment and output for the eurozone as a whole remains weak. These policies have also produced a significant decline in the rate of inflation for the eurozone—currently, the annual core rate is about 0.8 percent—which has prompted the European Central Bank to take measures to avoid the spread of deflation from one or two countries to the rest of the eurozone.

As the example of Japan has shown, deflation or near deflation can amplify demand problems. First, by creating the expectation of lower prices in the future, deflation both dampens the incentives of consumers to purchase goods and services and creates an incentive for investors to delay productive investments into the future, when they will be cheaper to make.⁷⁶ Second, deflation also makes debts—public and private—more expensive to repay. By making it harder for private actors to deleverage by paying off debts, deflation prolongs the hangover of the financial crisis. At the same time, it makes public debts more difficult to reduce through economic growth.

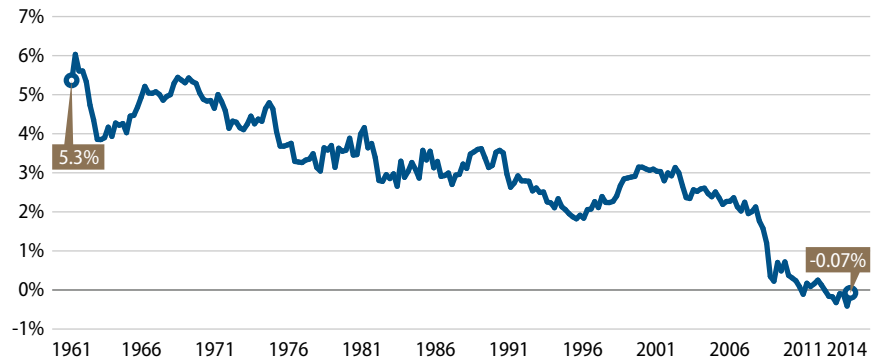
In the United Kingdom, the postcrisis recovery has been accompanied by a “productivity puzzle.” While employment performance has been relatively robust—employment and hours worked have now risen above precrisis levels—real wages and output per worker remains below precrisis levels. There is a view that the underlying rate of productivity growth has collapsed.⁷⁷ One explanation advanced by Mark Carney, the governor of the Bank of England, suggests that increased labor-force participation—brought about by the accumulation of household debt, increased uncertainty about future incomes, and policy changes that have raised pension ages and welfare reforms—has encouraged employers to substitute capital for labor, lowering productivity.⁷⁸ The high cost of capital faced by small firms is another reason for this substitution. But of course that outcome is also a function of the overall level of demand in the labor market, which is affected by aggregate demand policy.

In the United States, there is little doubt that misguided fiscal austerity has harmed the recovery. While the federal government successfully engaged in fiscal expansion through the American Recovery and Reinvestment Act of 2009, much of the expansionary impulse had played out by the end of 2010. Instead of engaging in additional stimulus, conservatives forced the adoption of austerity measures, cutting expenditures when they ought to have been increased. State governments amplified the contractionary effect by cutting their budgets as tax revenues declined. Expansionary monetary policy and quantitative easing by the Federal Reserve have proved insufficient to counteract all of the effects of austerity and the crisis.

There is also some evidence that the United States and other countries face additional, longer-run demand problems. The explanation of these longer-run problems is part of the “secular stagnation” hypothesis advanced by a variety of economists.⁷⁹ The basic idea is that because of changes to the structure of the economy—such as increased income inequality and an aging population, both of which tend to increase savings rates and decrease aggregate demand—it is increasingly likely that full employment will not be reached even when nominal interest rates are reduced to zero.

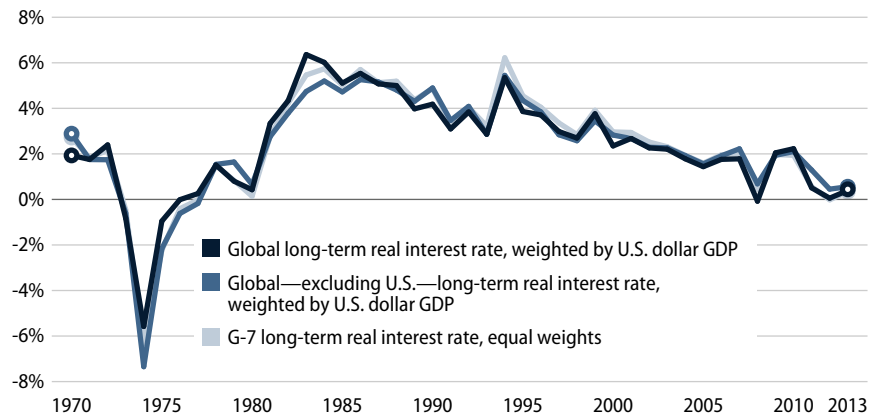
This possibility is reflected in estimates of the so-called natural rate of interest—or the rate consistent with full employment. The work of Federal Reserve economists Thomas Laubach and John Williams shows the estimated U.S. natural rate trending downward from around 6 percent in 1960 to negative values by 2010.⁸⁰ This decline in the estimated natural rate has been mirrored by trend declines in actual real, long-term interest rates in the G-7 economies, dating from the early 1980s.

FIGURE 2.14
U.S. natural rate of interest, 1961Q1–2014Q2



Source: Thomas Laubach and John C. Williams, "Measuring the Natural rate of Interest," *Review of Economics and Statistics* 85 (4) (2003): 1063–1070; Thomas Laubach and John C. Williams, "Laubach-Williams Updated Estimates" (2014), available at http://www.frb.org/economic-research/economists/john-williams/Laubach_Williams_updated_estimates.xlsx/.

FIGURE 2.15
Global long-term real interest rates, 1970–2013



Source: International Monetary Fund, "World Economic Outlook (WEO): Rebalancing Growth" (2010), available at <https://www.imf.org/external/pubs/ft/weo/2010/01/>.

This implies that if the United States were to rely on monetary policy to achieve potential output, then periods of expansion are likely to be accompanied by financial instability, since ultra-low interest rates contribute to asset price bubbles. And in fact, it is easy to interpret the financial instability that accompanied the previous two expansions in the United States in just this manner, since both were characterized by low real interest rates and accompanied by asset bubbles.

Prolonged failure to complete the macroeconomic recovery may reduce the long-run economic potential of advanced economies

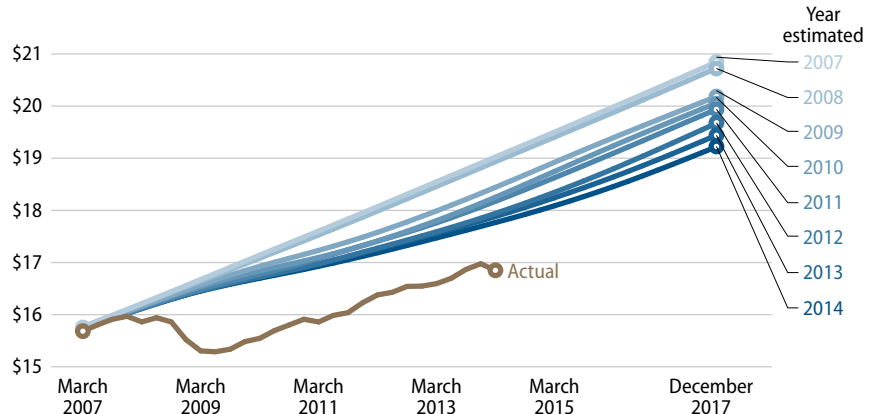
The failure of advanced economies to successfully address the low growth and high unemployment that have flowed from the financial crisis may translate into reduced long-term growth. One major finding of academic economic research during the Great Recession is that long spells of unemployment can permanently lower both workers' earnings and potential GDP.

In 2011, J. Bradford DeLong and Lawrence H. Summers presented research that pointed out the possibility that a similar dynamic may be at play in the United States during the continued slow recovery from the Great Recession.⁸¹ They argued that if we accept the possibility that fiscal intervention can affect long-run aggregate supply, the costs of fiscal stimulus are much lower than previously thought, and activist fiscal policies should be pursued more often. While this finding was originally quite controversial,⁸² it has since gained considerable support, as some additional research has found that the costs of the prolonged slump could be very large, permanently reducing GDP by as much as 7 percent as of late 2013.⁸³ Subsequent work by the International Monetary Fund has confirmed that potential GDP around the world has fallen as a result of the slow recovery from the financial crisis of 2008. Therefore, the conventional wisdom—that there are no long-term costs to doing nothing to increase demand—is also wrong.

FIGURE 2.16

Austerity has reduced long-term growth prospects in the United States

Actual and projected GDP paths, in trillions of 2013 dollars, 2007–2017

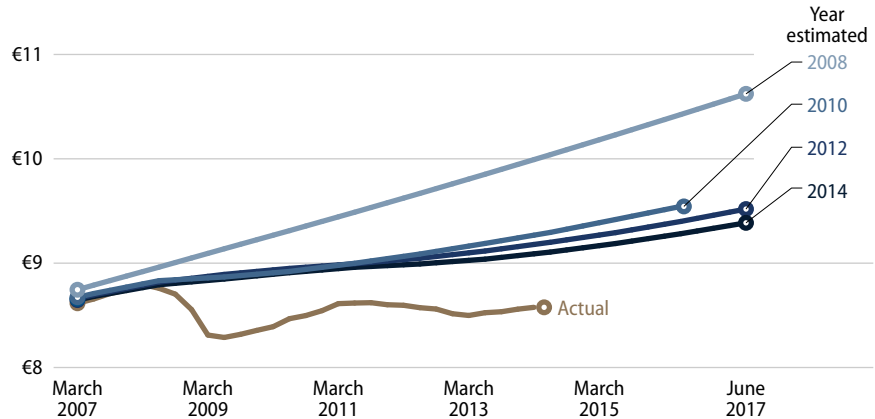


Source: Larry Summers, "Reflections on the new 'Secular Stagnation hypothesis,'" Vox, October 30, 2014, Figure 1a, available at <http://www.voxeu.org/article/larry-summers-secular-stagnation>.

FIGURE 2.17

Austerity has reduced long-term growth prospects in the eurozone

Actual and projected GDP paths, in trillions of 2005 euros, 2008–2017



Source: Larry Summers, "Reflections on the new 'Secular Stagnation hypothesis,'" Vox, October 30, 2014, Figure 1b, available at <http://www.voxeu.org/article/larry-summers-secular-stagnation>.

Challenges to sustainable aggregate demand

Sustainable aggregate demand is the virtuous cycle that is the engine of growth and innovation in advanced capitalist economies. When firms know they will face predictable, rising demand for products in the future, they invest in their future profits. Without the promise of future aggregate demand, we cannot count on firms to invest in innovation to increase productivity and drive up aggregate supply over the long run.

These investments can be simple ones that raise productivity, expand capacity, and help the firm's long-term bottom line, such as new factories and better equipment for these factories. But these investments can also be more fundamental and increase the well-being of society as a whole. When programmers develop an app for a phone, they both make money off the app—if it is any good—and create something other software firms can learn from at no cost. When a firm trains a worker to use a new programming language, the worker makes the firm more money through her enhanced productivity, but she may also share with friends who work at other firms about what she's learned, making them more productive too. These investments and knowledge spillovers are what make an economy grow, but without predictable future growth in aggregate demand, there is less incentive for firms to initiate these investments in the first place.

Advanced economies have clearly struggled to generate sustainable aggregate demand in the aftermath of the Great Recession. This is not altogether surprising, as the United Kingdom, the United States, and other advanced economies face significant challenges to the economic model that made them successful at creating sustainable aggregate demand in the second half of the 20th century. Rising income inequality has shifted income to wealthier households. These households have fewer immediate needs and demand more assets and fewer goods and services for each new dollar they earn. Across an entire economy, a more unequal income distribution therefore means that the same growth in aggregate demand requires faster GDP growth.

This result is also consistent with recent research from the IMF, showing that economies with greater levels of inequality experience slower GDP growth.⁸⁴ Simply put, without broad-based income gains, economies do not produce growing markets for new, innovative products, dampening incentives for firms to innovate and invest. The 1 percent will not buy as much as the 99 percent. Two economies growing at the same rate but with different income distributions pres-

ent firms with different sets of demands. An especially unequal society will produce more demand for financial innovation, as economic growth creates greater incentives to produce greater financial yield. A more equal society, where less of the gains from GDP growth accrue to a small group, will produce more demand for goods and services, providing entrepreneurs with incentives to produce genuine innovations that raise society's ability to produce goods and services with a given stock of inputs. While financial innovation rarely benefits society at large, innovation in the real economy does, and evidence increasingly suggests societies that devote more innovative effort to the real economy create faster, more sustainable economic growth.⁸⁵

While increasing income inequality has the potential to reduce the returns on investments through lower aggregate demand, the demand for investment capital has been falling for other reasons, chiefly the decline in the amount of capital required to create wealth in our information economy. The cost of producing software is minimal compared with traditional, fixed capital investments such as those required for manufacturing. Many of the new economy business models rely on creating network externalities, a task more demanding of speed than of size, and require little capital investment once a dominant position is established.

The combined effect of these three forces—(1) firms needing less capital to make investments, (2) aging populations and increasing wealth concentration among individuals raising demand for assets relative to goods and services, and (3) increased income inequality reducing aggregate demand and hence investment demand—is completely consistent with the finding that real interest rates have fallen. It also implies low real interest rates in the future, suggesting we need a better mix of policies than those currently in place.⁸⁶

Different countries' fiscal considerations will lead to different solutions for how to finance the key public-sector role in growing the economy's supply side through investments in infrastructure and human capital that also help stabilize aggregate demand today. Where countries are not investing sufficiently in public capital, where opportunities exist for increased productivity through public investment, and where real interest rates have fallen, governments should recalibrate to reflect this new reality.

The need for a progressive supply-side agenda

Alongside rising sustainable levels of aggregate demand, economies in advanced countries must increase the productive capacity of their workforces, make much-needed investments in public goods and infrastructure, and put in place the conditions for innovation that are the best way of increasing trend growth. Raising human capital is critical to improving economic growth. Improving the quality of compulsory education and providing both vocational and academic routes to high skills is vital. Improving education levels for all helps reduce inequality by ensuring that everyone is able to benefit from a growing economy. Increasing the quality and quantity of skills for disadvantaged children is an essential way of creating inclusive prosperity.

Investments in infrastructure, such as transport, energy, telecom, and housing, are also essential to improving economic growth. Because they tend to be large scale and long term, they require high levels of coordination in order to maximize the wider benefits to society as a whole. This means that in many cases, governments will play a vital role in planning, delivering, and financing these projects.

Innovation and investment in equipment and new ideas are crucial for raising long-term trend-growth levels. Investing in capital allows firms to incorporate new technologies and can be an important part of their strategies to reorganize production processes toward global best practices. The dynamism of innovative new firms, which introduce new products and processes into the market, is vital for growth. Fostering a supportive environment for investment and innovation is central to having a dynamic and productive economy. Since there are often market failures in innovation, the government also has a role in providing incentives for research and development and creating wider policies to support innovation such as clusters.

Policy and institutions make a difference

This chapter outlined the substantial challenges facing advanced economies today: The economic environment has shifted, income inequality has grown, and the recovery from the economic crisis is not yet complete. But these challenges are surmountable.

There is considerable evidence that certain national policies can produce vastly different outcomes. While all advanced economies have been buffeted by increased global competition and rapid technological change, the consequences for their citizens have not been uniform. Canada, Australia, and Sweden, for example, have access to the same automation and are at least as exposed to trade and low-wage competition as other countries, but they have maintained a closer link between productivity and wage growth in the face of these pressures.⁸⁷

The next section will therefore be devoted to identifying policies that can help make advanced economies more inclusive.

Endnotes

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- 6 C. Fred Bergsten, "A New Foreign Economic Policy for the United States." In C. Fred Bergsten, ed., *The United States and the World Economy: Foreign Economic Policy for the Next Decade* (Washington: Peterson Institute for International Economics, 2005), available at <http://bookstore.piie.com/book-store///3802.html>.
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Chapter 3

Policy

Policy

The central challenge of economic policy in the industrial world

The central challenge for economic policy in advanced-market economies is renewing the growth of living standards for everyone. As market incomes have stagnated or declined, the prospects for many households have dimmed. Tax-and-transfer systems have mitigated some of these market effects, but they have not counteracted all of them. To change this dynamic, policies must be directed toward reviving growth rates, increasing productivity, and ensuring that middle- and lower-income households are the substantial beneficiaries of the subsequent economic progress.

Increased economic growth depends on both aggregate demand and supply. At the moment, many advanced economies are operating below capacity because of shortfalls in aggregate demand. There is an immediate need to increase demand to get these economies back to full employment and higher wages. In the longer term, increased growth will depend on increasing the overall productive capacity of the advanced economies.

Delivering high-employment, high-productivity economies, with rising employment and rising wages, will also help bring budget deficits down and put national debt on a downward path. As the experience of the United Kingdom has shown, low productivity and the stagnation of wages leads to lower income tax and national insurance receipts, as well as higher spending on social programs. The result has been that targets to reduce the United Kingdom's deficit have been missed by a substantial margin. Higher productivity and wages are essential to putting public finances on a robust and sustainable footing without deep and damaging cuts to public spending and investment.

Restoring demand

In response to the downturn initiated by the financial crisis of 2008, many advanced economies have responded by quickly embracing fiscal austerity. Government expenditures were reduced rapidly in the belief that immediate attempts to bring budgets into balance would somehow serve to increase demand and restore output and employment. This has not happened, and as International Monetary Fund, or IMF, chief economist Olivier Blanchard and IMF economist Daniel Leigh have recognized, the negative output effects have been significant.¹ A better approach to the current situation is to recognize that many advanced economies find themselves in a liquidity trap. That is, in some countries, even when central banks manage to push the short-term interest rates to zero or close to it, the effects on aggregate demand are insufficient to bring those economies to full employment. This was a major problem in the United Kingdom in 2011 and 2012, and it seems clear that the economies of Japan and most of the eurozone are in such a trap—and that the United States was at least in this trap. Where these countries' fiscal positions allow and where demand is weak, governments should consider making investments in their people, stimulating demand and addressing the challenge of stagnant wages. Domestic policy will of course be most effective if there is adequate global demand, and with so many of the world's large economies in similar positions, international coordination on demand management becomes of paramount importance.

Increasing supply

A return to an economy growing at full potential will produce substantial benefits for middle- and lower-income households. Increasing growth where it is currently not occurring will increase employment. Lower levels of unemployment and underemployment in labor markets, combined with increased productivity, will deliver rising real wages. The increase in potential output and productivity will improve not only long-term economic welfare but also the ability of government finances to fund necessary expenditures.

In the longer term, however, once advanced economies have thoroughly recovered, expanding potential output will require more progress on the supply side. Advanced economies need to increase the productive capacity of their workforce, make much needed investments in the public goods that support business growth, adopt family-friendly policies that will increase the number of workers, and take steps to aid innovation.

Promoting inclusion

While increased growth has obvious economic benefits, we now have plenty of evidence that, absent appropriate policy, middle- and lower-income households may not share fully in future productivity gains or economic growth at large. So advanced economies need to take steps to increase both employment opportunity for all and the earning power of all their workers. While many of these reforms will follow from economic principles, we must not lose sight of social barriers to inclusion that are just as important. As our societies become increasingly diverse, ensuring that people of every race, ethnicity, gender, background, and faith participate and share in economic gains is not only a matter of fairness but also one of the most fundamental approaches to ensuring inclusive growth in our economies.

In the remainder of this chapter, we identify policies that will serve to increase demand, increase long-run supply, and promote inclusion in the benefits of economic growth.

Domestic agenda for growth with inclusive prosperity

Managing globalization is critical both to increasing growth and to maintaining public support for the openness on which the modern global economy, and its related wealth, is built. Because the movement of goods, services, labor, and capital inevitably results in both winners and losers, it is essential that countries' domestic policy framework is equipped to ensure that growth is more sustainable and more equitable than in recent years. The principles discussed in this section are essential to ensuring that inclusive prosperity takes place. Different countries will, however, have different specific policies in response to these principles depending on their domestic circumstances.

Raising wages: Full employment in an economy where work pays

As advanced economies recover from the financial crisis, their primary goal must be returning people to decent work with a decent salary. Unemployment is falling across advanced economies, but in the aftermath of the global financial crisis, the slack in the labor market is manifesting itself in different ways. In the United States, for example, the labor-force participation rate for prime-age workers remains below previous levels, and real hourly compensation in the nonfinancial corporate sector

has remained essentially flat since the end of 2008.² In the United Kingdom, productivity remains unusually weak.³ Real wages have seen consistent weakness over the past few years. In both the short term and the long term, the first step toward achieving inclusive prosperity is a healthy labor market with growing wages and incomes.

Although years of slow recovery have rightly focused policymakers on restoring demand, sustaining healthy labor markets and middle-class living standards for the long term also means helping families get past barriers that keep too many people from fully participating in the economy. While experiences vary across countries, female employment rates are still below those of men, and in some important examples, such as the United States, employment among working-age women has declined significantly since 2000.⁴ Increasing the ability of families to earn two full incomes is vital to inclusive prosperity. In the sectors where job growth is taking place, good jobs with clear career progression must be developed so that workers can build on success, further develop their human capital, and earn stable wages that can support a middle-class life.

For most people in work, the spending power of wages—especially as it relates to the most important components of a middle-class lifestyle—is being eroded.⁵ In many countries, the relationship between wages and productivity has broken down, while minimum wages have lost their real value.⁶ The increase in part-time work across developed countries is associated with salaries that are not enough to attain an acceptable standard of living.⁷ Various countries have had upward pressure on wages even with a relatively loose labor market because they have institutions that create that upward pressure in the firm even as external pressures—such as globalization—push wages down. To help support decent living standards for all workers, there is an important role for tax credits, but they must be used in conjunction with a strong minimum wage to ensure they are an added reward for hard work rather than a subsidy for low pay.⁸

Understanding the interaction between minimum wages and public assistance is crucial to setting the right policy. A minimum wage that ensures a parent working full time can support a child without relying on government assistance has myriad benefits. Direct costs to the Treasury are reduced, workers gain greater independence, and workers have more time when they do not have to schedule additional trips to maintain their benefits.

It is also important that minimum wages adjust to keep up with pay at the middle and top. However, as crucial as minimum wages are to raising living standards for low-wage workers, strong minimum wages are not a cure-all. There are trade-offs in relying on minimum wages to raise living standards, and we must not lose sight of the fact that we need a mix of policies that deliver fairness and productivity growth. A labor market that works for everyone includes a healthy minimum wage that the vast majority of workers out earn.

Support for young people facing long-term unemployment

Many advanced economies are experiencing near-historic levels of youth unemployment, with levels as high as 54 percent in Spain and still above 10 percent in the United States, more than double the national rate of unemployment.⁹ The consequences of high youth unemployment can be long lasting: Research shows that workers who are unemployed as young adults earn lower wages for many years following their period of unemployment due to forgone work experience and missed opportunities to develop skills.¹⁰ It is therefore essential that young people who are out of work are brought back into the labor market as quickly as possible.

Case study: U.K. Future Jobs Fund

In 2009, the United Kingdom's Labour Government introduced a Future Jobs Fund, or FJF, in response to significant concerns about the long-term effects of rising youth unemployment. The Department for Work and Pensions, or DWP, pledged 150,000 temporary paid jobs lasting six months for unemployed young people and people living in disadvantaged areas, with a maximum DWP contribution of 6,500 pounds per job. The incoming Coalition Government ended the program in March 2011.¹¹

An independent national evaluation¹² found that of the 105,220 participants who started FJF jobs between 2009 and 2011, an estimated 43 percent of participants obtained a job outcome after FJF—in the majority of cases with the same employer as their FJF job—with “impressive levels of job sustainment.” The FJF had a noticeable effect on the youth labor market by creating jobs when few were available—accounting for 22 percent of 18- to 24-year-olds who stopped receiving Jobseeker's Allowance.

Analysis of the FJF's value for money suggests that it had a net cost to government of 3,946 pounds per participant, or just more than 9,000 pounds per job outcome, when direct tax revenues and benefit savings were taken into account. This cost-benefit calculation does not account for benefits such as indirect tax revenues, wider community benefits, and long-term tax revenues, so it is likely to have overvalued the cost to government of FJF.

As well as increasing employment and skills, FJF has left a legacy that includes more-inclusive approaches to recruitment and selection by employers, a change in employers' attitudes toward young and unemployed people, a number of successor temporary job programs currently in development, and a marked change for the better in many participants' lives.

Family-friendly labor-market policies to increase female labor-force participation and income

Families in all advanced economies have changed dramatically over the past half-century. Gone are the days when most children had a full-time, stay-at-home caregiver. Today, mothers work in record numbers in most advanced economies—though the United States is an outlier, with working-age women’s participation in the labor market falling fairly steadily since about 2000.¹³ In some countries, there are large potential gains in labor supply to be had if policies that help working families manage the dual responsibilities of earning wages and caring for family members can be improved. A recent analysis by Cornell University economists Francine Blau and Lawrence Kahn suggests that had family-friendly policies in the United States expanded in line with those of European economies, U.S. women’s labor-force participation rates would have been 7 percentage points higher in 2010.¹⁴ Addressing the issues facing working families can help fight income inequality by boosting labor-force participation, increasing wages for working caregivers, and reducing temporary separations from the labor force by supporting continuous employment.

In particular, paid parental leave—which increases labor-force participation for mothers in the years after giving birth—should be encouraged where it is not currently adequate.¹⁵ Paid caregiving leave, paid sick days, paid vacation, protections for part-time workers, and workplace flexibility are all important to increase the inclusiveness of advanced-market economies. These policies are especially important in diverse nations, where many community traditions call on family members to shoulder a large share of the caregiving burden.

In addition to promoting greater economic security for working families, family-friendly policies can also benefit business’ bottom lines by reducing turnover and improving employee morale and productivity.¹⁶ Some policies, such as greater access to workplace flexibility, have no direct cost to employers, while others, such as paid sick days, present minimal costs that are dwarfed by the potential savings through increased retention and reduced absenteeism.¹⁷ Even in the United States—where leave is most limited—longer leaves, such as those provided to new parents or family caregivers, can be funded and administered through governments with very low costs per individual covered.¹⁸

Other countries that already offer these rights are beginning to look at the role that universal and affordable or expanded free child care can play. It is no accident that the Nordic countries have some of the highest employment rates among working-age women; they have made significant commitments to caring for children to support this outcome. Affordable, universal child care is associated with higher

female employment rates, particularly for mothers. Boosting maternal employment rates not only increases family income and maintains women’s human capital by improving mothers’ attachment to the labor market, but it also increases the tax base, generating a positive cost-benefit return over time.

Case study: The gains from leave and workplace flexibility policies

All advanced economies except the United States guarantee the right to paid maternity leave. Not all guarantee leave for fathers, however, and many offer significantly less parental leave to fathers. This has a number of negative effects. When mothers are the only workers expected to take lengthy periods away from work, it can create a disincentive for employers to hire women who they believe are likely to have children—whether they become parents or not.

Gendered differences in work experience are one of the major drivers of the gender wage gap, which is partly the result of women taking more time away from paid labor to address caregiving needs. The stigma around parental leave is one of the reasons why mothers have lower wages than child-free women—and all men—even when productivity is taken into account. Mothers’ greater leave taking contributes to societal expectations that women are responsible for the majority of child care. Fathers who have access to greater paternity leave are more involved in their children’s caretaking, and the effects remain significant as the child ages. Policies that grant fathers use-it-or-lose-it parental leave are relatively new but show promise in sharing caregiving responsibilities more broadly, while removing some of the expectations of caregiving differences that may drive gender wage gaps.¹⁹

The benefits of paid caregiving leave closely mirror those of paid parental leave. Unfortunately, paid caregiving leave is much less common in advanced economies. Australia and Canada guarantee workers the right to paid caregiving leave. The United Kingdom only guarantees unpaid time off. Sweden guarantees leave with 80 percent salary replacement. Policymakers around the globe are still recognizing the benefits of these policies, and policy innovation in this space is one area where advanced economies can improve living standards through smart policy reforms.

The United Kingdom and Australia guarantee workers the right to paid sick leave, while Canada guarantees the right to leave but does not stipulate that it must be paid. The United States has no national policies regarding sick leave.

The United States is the only advanced economy that does not guarantee its workers paid vacation. As a result, almost one-quarter of workers have no paid vacation and no paid holidays. High-wage workers are significantly more likely to have access to paid vacation than are low-wage workers. Canada, by contrast, guarantees two weeks of paid vacation, while Australia and the United Kingdom offer four weeks. These are in addition to paid national holidays, the number of which varies per nation.

Both the United Kingdom and Australia have right-to-request legislation, which permits employees to request flexible work arrangements and requires that employers seriously consider these requests and provide justification if the requests are rejected. The U.K. legislation covers those responsible for the care of a child or an adult, while in Australia, the legislation covers workers with disabilities, workers over age 55, and those who are experiencing domestic violence or caring for a family or household member who is experiencing domestic violence.

The United States and Canada have no federal mandates on access to flexible work policies. In Canada, however, some local jurisdictions have provisions that permit some forms of workplace flexibility, such as compressed work weeks. And in the United States, San Francisco, California, and Vermont have recently adopted right-to-request provisions.

Raising take-home pay for low-wage workers

Expanding labor-market participation is critical but must go hand in hand with efforts to raise wages. When large portions of the workforce are earning low wages, their welfare is affected and their consumption is limited, which weakens aggregate demand. Comparative empirical work on the share of low-wage work in advanced economies suggests that the most important determinant of the observed differences across economies is the degree of “inclusiveness” of labor-market institutions.²⁰

For lower-wage workers, a principal mechanism to generate inclusiveness is a minimum wage that provides sufficient income and is tied to the median wage of all employed people. The available evidence strongly suggests that this is one good way to reduce the share of workers who are trapped in low-wage work.

As U.S. experience has demonstrated, an Earned Income Tax Credit, or EITC, is also a valuable tool to keep low-wage workers from living in poverty. The U.S. system provides important income supplements while rewarding increased work. The United Kingdom’s tax credit system has been similarly effective.

Increasing worker voice to increase wages

As productivity growth and median wages have diverged, an increasing share of the net income of the corporate sector has gone to management pay and to shareholders. When workers have less voice to demand higher wages, prosperity is not widely shared, a problem that is acute in the United States, where collective bargaining coverage is much lower than in most other advanced economies. In addition to measures to support wage growth, there is a need to create institutional change that will allow for a more inclusive capitalism, in which profit income is more broadly shared.

Our Australian commissioner, Wayne Swan, has noted that good policy reforms have been a large driver of increased income growth in Australia. Collective bargaining reform, prudent fiscal and monetary policy, a strong public-private partnership that has strengthened the pension system and financial sector, and a series of reforms aimed at increasing competitiveness reflect policy that has been a driver of growth, not a drag on it. Swedish Commissioner Pär Nuder pointed to a cooperative relationship between labor and management as a key to rapid growth in both productivity and wages in Sweden.

Some countries, such as Germany, have workers represented on company boards, as well as works councils and tripartite institutions of learning, which provide education on how to make workplace democracy effective and productive. Different countries will have more or less appetite for these kinds of reforms depending on their labor-market traditions and current outcomes.

Other inclusive capitalism practices range from employee stock-ownership plans and worker cooperatives—which allow workers an ownership stake in a company—to cash-based profit- and gain-sharing programs, which pay workers a portion of the capital-related income they helped generate but do not grant ownership. The connection between these schemes is that they compensate a broad base of workers—not just top executives—on the basis of group performance rather than individual performance.

For workers, inclusive capitalism is often associated with higher pay, expanded benefits and greater job security, participation in decision making, trust in the company and management, and better labor-management relations. For businesses, inclusive capitalism is often associated with increased productivity and profitability and a greater likelihood of corporate survival. In addition, companies often benefit from greater worker loyalty and effort, lower turnover rates, and an increased willingness on the part of workers to suggest innovations.

There is a range of policy options that could support inclusive capitalism. In the United States, for example, there are tax incentives for Employee Stock Ownership Plans, or ESOPs, though they do not extend to other forms of gain sharing. Although substantial benefits can accrue to business owners from ESOPs, workers also benefit because they tend to receive higher overall compensation, in part due to increased productivity. It should be emphasized that a progressive implementation of profit sharing ought not to require employees to give up existing compensation or employment rights. And government support for profit sharing should be in favor of making it available for all employees.

Protecting workers who are underemployed

The unraveling of the traditional employer-employee relationship has made it more difficult to provide basic labor-law protections to workers. As corporations have shed employees, through devices such as subcontracting or hiring independent contractors, they also have shed traditional responsibilities as employers.

This has long been an issue in the U.S. construction industry, where firms use subcontractors and create subsidiaries to avoid employer responsibilities. Currently, many workers at franchises of large corporations are nominally employees of the franchisee but have much of their workplace lives determined by the franchising corporation. Hospital, retail, and other workers are treated as just-in-time workers, required to report to work on demand, with no guarantee of minimum hours. In the United Kingdom, many workers employed on zero-hours contracts are in a similar position. Some companies are employing up to 85 percent of their workforces on contracts of this kind.²¹ This form of employment makes weekly household budgeting almost impossible and reduces employers' commitments to their workforces.

To address these problems, basic legal protections for employees need to apply when an employment relationship exists, and these protections should not be negated by legal form.²² Firms that are in reality employers should be made responsible for basic protections such as overtime pay, workers' compensation, and unemployment compensation, as well as for following other protections provided by labor law. In some countries, certain rights are quite rightly bestowed on individuals after a continued period of employment by the same organization. Legal distance from employees should not shield the employer from fulfilling basic responsibilities.

Educational opportunity for all

The analysis in Chapter 2 shows that advanced economies are increasingly rewarding those with high skills. It is therefore essential that education systems ensure that there are clear routes to high skill levels through both academic and vocational paths.

In many countries, young workers are not gaining the skills they need to replace a rapidly aging workforce. Across Organisation for Economic Co-operation and Development, or OECD, countries, the share of 45- to 49-year-olds in the workforce will rise 6 percent from 1995 to 2030.²³ In the United States, the average age of a skilled manufacturing worker is 56.²⁴ But too many young people lack sufficient literacy and numeracy skills, calling into question their ability to effectively perform these jobs when the older generation leaves the workforce.²⁵ Across OECD countries, between 5 percent and 28 percent of people are proficient at only the lowest levels in literacy, and about 8 percent to 32 percent of people are proficient at only the lowest levels in numeracy.²⁶ Worse yet, "OECD Skills Outlook 2013" indicates that skills are actually declining in some countries. For example, 55- to 65-year-olds in

England and Northern Ireland score about average relative to other OECD countries in literacy, but 16- to 24-year-olds are far below average in literacy. The United States is experiencing a similar trend in numeracy.²⁷

As a result, employers are increasingly worried about their ability to find skilled labor. A PricewaterhouseCoopers, or PwC, survey of global CEOs found that “an inability to find enough skilled talent is the number one concern of business executives around the world.”²⁸ Less than one-third of respondents to the PwC survey felt confident that they would find the talent they need to grow their companies.²⁹

There is a clear need to develop and expand the skills of workers who do not go to college. There is a wide spectrum of technical training, vocational education, and apprenticeships that is needed, which will vary substantially across advanced economies. In all cases, however, government, educational institutions, and businesses must work together to ensure that there is a clear and high-quality route of progression for those who choose not to go to college.

Early learning and childhood education

The evidence on economic growth points consistently to the importance of accumulating human capital, and nowhere is this more true than in the area of early childhood development.³⁰ Hallmark research from Nobel Prize-winning economist James Heckman demonstrates that childhood development—from before we are born through our early years, often before formal schooling—is especially critical to an individual’s potential development.³¹ The richness of the environment in which children develop at this age has lifelong effects on income, health, and cognitive development. At such a formative age, as economist Raj Chetty and his co-authors demonstrated, the quality of a child’s kindergarten teacher and educational environment can dramatically affect people’s income, probability of college attendance, and home ownership and retirement saving rates at age 27.³² And as discussed earlier, these investments in our future productivity also ease the burdens faced by families trying to participate in the labor force today.

This is where the strategy of inclusive prosperity is so important. For a country to be most effective in realizing its economic potential, opportunities to build human capital must be broadly available in the population. However, as income inequality has risen and as economic mobility has tightened across many advanced-economy countries, the opportunities for quality early learning and education are becoming scarcer.³³

The richness of this early life environment is also, of course, highly correlated with parental socioeconomic status. Rice University economist Flávio Cunha and University of Chicago economist James Heckman summarized the evidence: “The best documented market failure in the life cycle of skill formation in contemporary American society is the inability of children to buy their parents or the lifetime resources that parents provide.”³⁴ Economists measure the extent to which these privileges bestow competitive benefits upon offspring as the intergenerational elasticity of income—or, in other words, the part of the child’s income that is not explained by their individual ability or characteristics.

To harness the full economic potential of our countries’ human potential means that children from low- and moderate-income backgrounds need the same opportunities to fully develop their talents that wealthy children have. The economic benefits that follow from a true meritocracy require that we all get the chance to develop to the best of our abilities and find an occupation that best uses our talents. This research suggests that early childhood education, or ECE, programs have an even more profound effect on overcoming the intergenerational transmission of parental status. Chetty and another group of co-authors show that, in the United States at least, the regions that produced the most upward socioeconomic mobility also have lower inequality, lower residential segregation, better-quality primary schools, and stronger social environments.³⁵

Overall, the research confirms that ECE has a positive long-term effect on the cognitive development of children. Investments in well-designed national ECE programs, together with other improvements to the educational system, promise to add significantly to human capital formation in advanced economies.

World-class schools

World-class schools are essential for achieving inclusive prosperity, fostering community cohesion, encouraging a genuine stake in society, and participating in democratic structures. Education is a human right and a public good. Education is empowering and allows individuals to become actors rather than passive bystanders in the role of the state.

A system of world-class schools enables schools to collaborate; recognizes the need for economic, social, and emotional investment in education; promotes positive and developmental accountability; and secures entitlement for all children and young people. To secure inclusive prosperity, public education must be defined by its universality and encourage personal fulfillment, social responsibility, knowledge,

cultural acquisition, and skills for life. It should deliver on society's needs for social and economic development, political participation, environmental responsibility, and international solidarity.

There is increasing evidence of the importance of both formal and informal education structures. Informal education and learning takes place through investment in informal structures such as libraries, recreation centers, and cultural experiences. Access to these facilities ameliorates the barriers parents of disadvantaged children face in investing in cultural capital. Schools can often be the hub of these experiences, symbolizing the state's literal involvement in the community.

Formal education must include clearly set out rights and entitlements, including the right to a curriculum based on globally competitive standards developed through consensus, not ideology, and the right to professionally qualified teachers, who receive continuous training and development. In order for parents to be involved in their children's education, they need detailed information and effective frameworks that explain what is happening within schools, why it is happening, how they can engage, and how they can seek redress if they have problems or concerns.

The importance of collaboration is demonstrated by the OECD's Programme for International Student Assessment, or PISA. Schools that are encouraged to operate in wholly marketized systems and that do not build on each others' experience will create an iniquitous school system. Systems must therefore be developed to ensure that schools—across communities and economic and social divides—are encouraged to collaborate meaningfully.

A broad and balanced curriculum is vital for the development of inclusive prosperity. This is a curriculum that allows students to gain the core skills needed for the world of work; gives them the space and time to develop; and enhances the so-called soft skills—including team working, people management, civic and school engagement, and diversity awareness—to ensure that children are allowed to be fully engaged members of society in preparation for adult life. Crucially, any curriculum must allow for economic and political literacy, as well as independent advice and guidance about the world of work.

To be inclusive and to enable all learners to meet their potential, the state should implement policies to ensure that those denied the full range of opportunities to develop their social and human capital through their lives outside school do not experience enduring disadvantage. Equality of opportunity is central to inclusive

prosperity; it is therefore incumbent on policymakers to ensure that all possible steps are taken to remove barriers to opportunity and achievement that children and young people often face and mitigate the risk of lasting social and economic exclusion.

In order to encourage parental involvement in education—still the more important determining factor in educational outcomes—parents need to be genuinely engaged in the running of and life of the school. This is not a matter of taking over from educational professionals but rather a matter of active participation in the development of the school. In England, for example, the Co-operative Movement and the teaching union (the National Association of Schoolmasters Union of Women Teachers, or NASUWT) developed the cooperative school model as a counterweight to an increasingly marketized system; it has been very successful in encouraging genuine stakeholder engagement, and, consequently, there are now more than 1,000 cooperative schools.

Community involvement is also key to developing world-class schools, ensuring that the school is not only reflective of the community but also reflective of the community's needs. Democratic engagement and oversight of schooling ensure transparency over the spending of public money and are therefore crucial.

A world-class school system requires a high-quality workforce. It is essential, therefore, that teachers are appropriately trained, qualified, and supported throughout their careers by access to continuing professional development; that they are recognized and rewarded as highly skilled professionals; and that they have working conditions that allow their professionalism to flourish, all of which enables them to focus on teaching and learning. Teachers must be empowered to engage in the running of their schools through a stakeholder model of education and must have progressive trade unions working in partnership with government and other employers as their representatives.

Another important component of a world-class school system is an inclusive higher-education system. Technological change and globalization have increased relative demand for workers with postsecondary educations; raising the percent of the workforce with postsecondary educations will boost wages for all workers.³⁶ For many workers today, a college or university education is as much a necessity as a high school education was for their parents. Advanced economies should be working to make their higher-education systems more inclusive of all qualified students, regardless of their parents' economic backgrounds. For example, Germany recently made college education free,³⁷ while Australia has significantly increased attainment with its combination of no upfront fees and income-based repayment.³⁸

Finally, world-class schools can only be achieved through a close relationship with local and national employers. This relationship must be a two-way process that allows businesses to have input into the development of the education system but also creates incentives for businesses to invest in training.

Support for vocational education

Developed countries need strong education and training systems that connect individuals to good jobs and provide vocational alternatives to higher education. Despite high levels of youth unemployment around the world, surveys indicate that employers are increasingly worried that candidates do not have the technical competencies needed to fill jobs.³⁹ There are a significant share of good jobs in the economy that do not require a college degree, but many of the most advanced economies lack clear avenues for young people to gain the skills and credentials required for these middle-skill jobs.

Young people should be able to seamlessly transition from secondary school into one of a number of pathways to attaining postsecondary credentials, including baccalaureate and sub-baccalaureate degrees, technical certificates, and apprenticeships. Young people must have chances to access different paths to adult success so that talent is not wasted due to youthful indiscretion; precociousness and maturity are gifts, but they should not be requirements that exclude talented individuals from maximizing their potential. Countries can better prepare young people for the labor market by providing effective counseling to students at the secondary and postsecondary levels, directing funds to programs with demonstrated effectiveness, and incentivizing employers to partner with educational and training institutions to develop programs that lead to good jobs. Employers should also come together to document the skills and formalize the credentials required for high-growth jobs in their sectors.

Support for apprenticeships to increase productivity and employment

There is substantial evidence that apprenticeship programs efficiently increase the accumulation of productive human capital. Researchers have found that U.S. workers who complete an apprenticeship make about \$300,000 more than comparable job seekers over their lifetimes. People who complete an English apprenticeship have been found to make a gross weekly wage 10 percent higher than those who have not.⁴⁰

A Swiss study found that employers spend around \$3.4 billion annually training apprentices but earn \$3.7 billion each year from apprentices' work during training.⁴¹ In Canada, researchers found that employers receive a benefit of \$1.47 for every dollar spent on apprenticeship training.⁴²

Apprenticeships are also an effective public investment. In an analysis of workforce-training programs in the U.S. state of Washington, researchers found that the return on investment for apprenticeships is \$23 for every public dollar invested—substantially higher than for any other workforce-training program, including community colleges, which were found to have a return on investment of \$3 for every public dollar invested. Apprenticeships in Washington, as in the rest of the United States, have a low public cost because employers and labor unions pay the bulk of the expenses. In the United Kingdom, the Department for Business, Innovation and Skills and the National Audit Office determined that for every pound spent by the government to support apprenticeship, the country gets a return of between 18 pounds and 28 pounds.

For these reasons, apprenticeship programs are a promising policy for increasing skill levels and increasing long-term economic growth.

Apprenticeship training

Apprenticeship is a worker-training model that supports economic growth by boosting companies' productivity and connecting workers to good jobs. An apprenticeship is a job in which the worker is paid to learn a set of skills through on-the-job training. A strong and diverse apprenticeship system that includes a wide range of sectors and occupations helps businesses meet the demand for skilled workers while offering workers higher wages and better employment outcomes.

Switzerland, Germany, and Austria have long-established apprenticeship systems that are renowned for their high quality. A majority of young people enter the workforce through an apprenticeship, which are available across a wide range of sectors and occupations. Apprentices are typically in their teens and early 20s. The governments are very involved in regulating, developing skills standards for, and subsidizing the programs.

The United Kingdom and Australia have sought to expand their apprenticeship systems in recent years. They have successfully increased participation by employers and workers, expanded occupations, and

increased gender diversity. But these apprenticeships are low quality when compared with Switzerland, Germany, and Austria, and much of the growth in apprenticeships has been in workers over age 25. The governments provide some subsidies and are less involved in regulating quality. England has recently launched an effort to engage employers to develop uniform apprenticeship standards.

The United States has a small apprenticeship system of about 375,000 apprentices, heavily concentrated in the building and construction trades. Apprentices are typically older—with an average age of 29—and male. Although limited in numbers and occupations, the existing programs are high quality. The federal government spends \$30 million annually on administration but offers no financial incentives to employers or apprentices. Apprenticeship standards vary across the country.

Measures to support innovation and regional clusters

Innovation is crucial for raising long-term trend-growth levels. Since there are often market failures in the supply of innovation, the government has a critical role in providing incentives for research and development and putting in place wider policies to support clusters. Harvard professor Michael Porter defines clusters as “geographic concentrations of interconnected companies, specialized suppliers, service providers, firms in related industries, and associated institutions ... in particular fields that compete but also co-operate.”⁴³ Research generally shows that clusters lead to positive economic benefits,⁴⁴ though the more challenging question is how government can play a positive role in developing and advancing clusters.

Supporting innovation clusters

Governments can encourage innovation through a mixture of tax policies such as research and development tax credits, grants for research into specific technologies or prizes for solutions to particular challenges, and support or incentives for patient capital that recognizes the long-term nature of returns from innovation.

While there are divergent views on the role of government in cluster policy, it is broadly accepted that the role of government is not to cut new clusters out of whole cloth but rather to support and develop existing clusters. As Mark Muro and Bruce Katz of the Brookings Institution have written, “Clusters can’t be created out of nothing and cluster initiatives should only be attempted where clusters already exist.”⁴⁵

Porter has argued that “government should reinforce and build on established and emerging clusters rather than attempt to create entirely new ones,”⁴⁶ seeing a role for government in “cluster upgrading,” which focuses on “removing obstacles, relaxing constraints, and eliminating inefficiencies.”⁴⁷ Enrico Moretti notes that it is “really hard to engineer an innovation cluster,”⁴⁸ instead advocating for the use of R&D and education policy to lay the groundwork for successful clusters.⁴⁹

Different governments have taken a number of different approaches to encouraging clusters as set out in the text box below. Governments will want to find the right balance between general policies to encourage overall levels of innovation and more-specific spatial or industrial policies that encourage innovation in particular areas or technologies.

Case study: Current cluster policies

Every country does cluster policy differently, whether they call it cluster policy or not. Here, we consider two examples in more depth—from the United States and the United Kingdom—and what lessons we can learn more broadly from recent experience.

United States

To assist industry, academics, and policymakers with better data, in 2010, the U.S. Department of Commerce’s Economic Development Administration formed the U.S. Cluster Mapping Project with Harvard Business School’s Institute for Strategy and Competitiveness.⁵⁰ Additionally, other federal agencies—including the Small Business Administration, the Department of Energy, and the Department of Labor—have been involved in funding interagency cluster initiatives, with a focus on competitive “race to the top”-style grants. For example, the i6 Challenge operated three multiyear grant competitions for “local ecosystems to catalyze technology commercialization, new venture creation, and jobs ... which stand to positively influence the formation of regional clusters and cluster strategy development,”⁵¹ funding 19 projects with an average grant of \$1.6 million.⁵² And the Job Search Accelerator Program has funded three rounds of grants for clusters around the United States since 2011, including a round dedicated to rural jobs and another round dedicated to advanced manufacturing.⁵³

United Kingdom

In 1999, the United Kingdom established a Clusters Policy Steering Group—led by Lord David Sainsbury, a member of the Inclusive Prosperity Commission—which assisted in the publication of the

government’s “Planning for Clusters” white paper.⁵⁴ This called for regional groups to consider the effect on clusters when planning their land-use and infrastructure policy.⁵⁵ Additionally, the Department of Trade and Industry published its research assessment that identified and mapped U.K. industrial clusters in 2001,⁵⁶ and Regional Development Agencies designed and implemented cluster-development policies in the United Kingdom until they were disbanded in 2010, leaving underfunded local enterprise partnerships to assist clusters.⁵⁷ The Coalition Government has, however, taken forward the funding of Catapult Centres, which are designed to bring together the best of the United Kingdom’s businesses, scientists, and engineers to work side by side on research and development and on transforming ideas into new products and services to generate economic growth.

Recent research commissioned by Lord Sainsbury provides a snapshot of the United Kingdom’s economically productive clusters.⁵⁸ The report identifies the 31 most economically significant clusters in the United Kingdom, which despite containing less than 10 percent of the nation’s businesses generate 20 percent of its overall economic output. Together, these clusters employ 4 million people—one in seven of the working population—and typically offer substantially higher salaries than their surrounding regions. The report calls for decisive action and targeted support to help these clusters fulfill their potential, including better support to incentivize universities to commercialize their research and contribute to their local knowledge economies; measures to address critical skills shortages in areas valuable to clusters, such as computing and engineering; and greater investment in targeted infrastructure projects.

Decentralization to support innovation clusters

Much existing and proposed policy focuses on changing conditions directly related to innovation itself. However, some economists have noted that indirect support can also be crucial. Using the example of Seattle, Washington, Edward Glaeser has pointed out that a combination of land-use policy and transit investment can be crucial to supporting development of innovation clusters. He notes that Seattle's decisions to support high-density housing through land-use regulation and to build transit that makes high-density living workable have combined to keep the cost of housing in Seattle within reasonable bounds.⁵⁹ This has made it easier for Seattle to attract high-technology businesses and to supply the support services that are needed for these businesses.

Since it is possible to identify cities that serve as successful innovation clusters, a policy that includes land-use regulation in support of high-housing density, along with support for transit infrastructure that makes high-density housing livable, could be implemented. The result could be long-term gains in productivity growth at relatively low cost. Pursuit of such a policy would not require picking winning firms or the location of future innovation clusters.

It should also be noted that the gains from supporting innovation clusters are not confined to high-technology businesses and workers. There is evidence that the wages of less-skilled workers rise as the concentration of highly educated workers in a city increases.⁶⁰ Moreover, cities tend to be much more energy efficient than exurbs, so there are environmental gains from support for urban economies.

Greater long-termism in the private and public sectors

To provide greater macroeconomic and financial stability and to raise productivity, it is essential that markets work in the public interest and for the long term rather than focusing only on short-term returns. Meanwhile, policies to improve the supply side of the economy or to address long-term risks such as climate change should be developed and implemented on a cooperative basis to create greater certainty.

Reforming corporate governance to encourage long-term investment

There is substantial evidence that the incentive structure for corporate decision makers is flawed. Horizons for investment decision making have been shortened because management compensation is tied to short-term stock-market performance. There is little evidence that increases in executive remuneration in recent decades has improved overall economic efficiency. Instead, this may have limited the corporate income available to compensate ordinary workers. To be clear, the direct costs of top-end pay packages are relatively small as a portion of the economy, but the indirect effects of incentivizing managers on the basis of short-term stock performance have major implications for investment, innovation, and wage growth. As executives have become increasingly incentivized to focus on short-term share prices, the firms they manage have turned away from investments in innovation and long-term capital formation, as well as wage growth and workforce investments.

In the United Kingdom, economist John Kay carried out an independent review for the government that concluded that “short-termism is a problem in U.K. equity markets, and that the principal causes are the decline of trust and the misalignment of incentives throughout the equity investment chain.”⁶¹ The review by Sir George Cox in “Overcoming Short-termism within British Business” also concluded that “the potential to deliver quick results to the potential detriment of the longer-term development of a company has become an entrenched feature of the U.K. business environment.”⁶²

Reforms to corporate governance are therefore critical. There are a number of potential ideas that could be implemented, including making directors more independent of company staff, moving away from quarterly reporting, taking measures to reduce the ease with which hostile takeovers can take place, and promoting greater information disclosure from brokers and other market participants.

As well as improving corporate governance, there are some sectors where competition has broken down that will need interventions to support the reasonable functioning of the free market. The banking sector is one example that is discussed in more detail below. In the United Kingdom, energy markets are under investigation by the Competition and Markets Authority because of the view that features of the energy market were preventing, restricting, or distorting competition.⁶³ The Labour Party has set out a series of measures to reform the market.⁶⁴

Investment in infrastructure

An economy can only grow as fast as its infrastructure systems can move information, people, and goods. Infrastructure investments provide strong jobs and productive assets that serve as the foundation for long-term economic competitiveness, increased prosperity, and a high quality of life. By comparison, failing to invest leads to deteriorating facilities, unpredictable service disruptions, congestion, and higher costs to businesses and households.

Following the end of World War II, advanced economies invested heavily in infrastructure to support rapid population and economic growth. Today, many of these facilities have depreciated and degraded, and they need to be replaced or substantially repaired in order to maintain their economic usefulness. At the same time, almost every economic sector touches part of a global supply chain or earns revenues from international sales. Rapidly increasing trade volumes and just-in-time production models demand high-quality infrastructure. As a result, advanced economies face the twin challenges of maintaining legacy assets while also investing in critical projects that will support future growth and prosperity.

The International Monetary Fund recently noted the need for infrastructure upgrades in particular economies:

Even in some advanced economies, in which measures of the quantity of infrastructure appear high relative to those in the rest of the world, there are deficiencies in the quality of the existing infrastructure stock. Business executives' assessment of the overall quality of infrastructure has been declining for the United States and Germany ... reflecting largely the perceived deterioration in the quality of roads and highways. ... As the American Society of Civil Engineers (2013) notes, 32 percent of major roads in the United States are now in poor or mediocre condition, and the U.S. Federal Highway Administration estimates that between \$124 billion and \$146 billion annually in capital investment will be needed for substantial improvement in conditions and performance—considerably more than the current \$100 billion spent annually on capital improvements at all government levels.⁶⁵

Where there are these sorts of gaps, there are very strong reasons to close them. Doing so efficiently can increase an economy's long-run growth potential. It can generate major employment for groups that have fallen most behind in recent years. And where an economy has the problem of surplus savings, this kind of expenditure is even more important as a source of demand.

Of course, financing for public investment of any kind must depend on economic circumstances. Where countries' fiscal positions allow and where opportunities exist for increased productivity, governments should consider carrying out new public investment programs.

Mitigating and adapting to the effects of climate change

Climate change poses a unique challenge to advanced and emerging economies, and an international response is required. Many coastal emerging economies are some of the poorest on Earth. This global challenge also represents a profound opportunity. Due to their considerable legacy of investments, advanced economies—especially those with significant coastline such as the United States, Australia, and the United Kingdom—stand to suffer significant financial losses as a result of a changing climate. At the same time, wealthy nations have the most advanced technology and the greatest resources at their disposal to both reduce emissions and adapt to a warmer world. The path forward requires a clear-eyed recognition that we are already behind the curve in adapting our economies to the reality of climate change. It also requires a clear understanding of the immense economic consequences of failing to stabilize CO₂ levels through aggressive action, while using every tool in our arsenal to maximize the emissions-reduction benefits for every dollar we spend on decarbonizing our economies. Our approach to inclusive prosperity must recognize that those most exposed to the costs of climate change are the lower- and middle-income households that are the focus of this commission, and a failure to insulate households from the risks of climate change is a failure of national security.

The challenges of climate change are serious, and we should not understate them. After decades and trillions of dollars in investing in our energy sectors and economies, we have learned that business as usual is not a viable option. We already know some of the investments made by people and corporations in carbon-intensive assets will be realized as losses. Groups around the world have noted the existence of a so-called carbon bubble—assets that are currently valued for the market price of their fossil fuels but that cannot be fully utilized without serious adverse climate impacts.

But the opportunities for clean energy investments are vast. The developing nations of the world promise new markets for advanced economies, but to realize this potential, electrification must be vastly scaled up across the globe, while carbon emissions must be brought down. It is important not to lose sight of the fact that energy is an intermediate input and not an end goal in itself. In the near term, we can cut emissions by making investments in new electricity generation—or by making efficiency investments that lead to the same level of end services to consumers—while using less of our existing generation. The paths to solving the problem are many, and policymakers must not let doctrine get in the way of innovative solutions to make our climate more stable and our population more productive. Nonetheless, those countries and regions that do not currently put a price on carbon—including the United States—should look to do so. This would help mitigate carbon pollution, provide incentives to invest in low carbon infrastructure, and send an important signal that the world is serious about this issue.

While private entities will shoulder much of the burden of transitioning to a lower-carbon economy, whether through developing new technologies or through investing in producing them at scale, there is a strong role for the public sector in achieving a sustainable climate and a vibrant global economy. Increased patterns of severe weather events in developed countries have led to renewed calls for significant investments in public and private infrastructure. The return on these investments is twofold, providing insurance against future events and creating jobs and positive investment opportunities today. The most visible elements of a resilient infrastructure, such as flood control and more robust distribution systems, represent only one part of this opportunity. Generations of underground infrastructure, from subways to pipelines and water systems, must be modernized and hardened against extreme weather, but this process is not a discrete shift. Mitigating climate change will save trillions of dollars in adaptation investments, preserving communities and investments that have been built up over generations.

A failure to meet the challenge of climate change is a failure to ensure inclusive prosperity. Governments must coordinate and target their efforts, lest dealing with extreme weather events diverts scarce public dollars away from other productive uses, as experience indicates the public sector will be the insurer of last resort. A reactive policy will come at the expense of other societal needs such as education, so governments can only ensure investments in their citizens by making concrete commitments today to avoid costly, open-ended commitments in the future.

International cooperation to provide the conditions for inclusive growth and shared prosperity

Shared efforts to raise global demand

Chapter 2 outlined the related risks facing developed countries, including secular stagnation, deflation, and low productivity. The global economy is also at risk from a slowdown in some emerging-market countries, including, notably, China. Against this backdrop, it is imperative that advanced economies focus their policy efforts on completing the task of macroeconomic recovery from the financial crisis. Fiscal austerity has created needless self-inflicted harm in many advanced economies, and more policy coordination is needed to boost domestic demand in many countries. Moreover, the poor overall performance in countries recovering from the financial crisis is holding back wages and the restoration of household income.

Greater efforts are now needed to use international forums such as the G-20 and the International Monetary Fund to coordinate policies that increase global demand. Within the scope of individual countries' fiscal outlooks and policy approaches, there is a strong case for internationally coordinated, long-term public investment over other forms of public spending or tax cuts. In a period when many advanced economies are operating well below potential output and real interest rates are relatively low, there should be little concern that this would displace private investment.

A renewed focus on the international economy and regional partnerships

International trade plays a central role in most advanced-economy countries. The depth and diversity of commercial and cultural interactions across the globe are the lifeblood of our economic system, providing a spur to innovation and opportunities for growth. The revival of the World Trade Organization trade talks and all new regional or bilateral trade deals must be focused on establishing high standards for open global markets, with a level commercial playing field. This ensures that the benefits of trade outweigh its costs, and in the high-pressure, high-productivity economy we envision, workers and investment can fuel a more inclusive prosperity.

Policies to boost the opportunities from growing trade appear foremost in other areas of this report—creating a business environment conducive to the right kinds of investment with high standards; developing a skilled workforce; incentivizing innovation; and connecting the chain between stages of innovation, from research and ideas to commercialization and production. Here, we focus on policies to advance inclusive prosperity through building trade and investment relationships.

Both the United States and the European Union are negotiating major trade and investment deals with each other as well as with the emergent bloc of Asia-Pacific economies—places where basic economic institutions can operate quite differently than in most advanced-economy countries. Here, the potential for cooperation between the United States and Europe to harmonize the high-income economies’ sets of standards is a particularly important impetus for the Transatlantic Trade and Investment Partnership, under present negotiation. The United States and the European Union have much fertile ground to expand complementary trade and investment while protecting public services, as well as to cut the cost of doing business across the Atlantic while establishing strong rules and norms for conduct throughout the global economy.

Continued cooperation on financial stability

The global financial crisis exposed major flaws in the global financial system. Excessive and ill-understood risks were taken before 2007 across the financial system, with many financial institutions operating with too little capital and inadequate liquidity and risks being transferred across national boundaries. The recession caused by the crisis badly affected public finances. Banks needed to be bailed out to prevent catastrophic contagion, and government receipts from the sector and the wider economy fell sharply.

When banks are too big to fail, it ultimately means that they are benefiting from an implicit taxpayer subsidy. The IMF has estimated the value of this subsidy to be as much as \$110 billion.⁶⁶ This means that creditors are more willing to provide funding without paying sufficient attention to a bank’s risk profile, encouraging higher leverage ratios and greater risk taking. It gives larger banks a competitive advantage because they are more easily able to attract creditors. Most importantly, it inexorably leads to real taxpayer bailouts. Bank of England Governor Mark Carney has called it a “heads-I-win-tails-you-lose bubble.”⁶⁷

Those running the banks did not, in most cases, have to deal with the catastrophic consequences of some of their mistakes. Large rewards were paid out for what turned out to be, over the subsequent years, huge failure. In the words of the United Kingdom’s Parliamentary Commission on Banking Standards, remuneration “lacked down-side incentives in the worst case scenarios that were remotely comparable to the upside incentives when things seemed to be going well.” This both undermined the stability of the sector and fuelled public anger with the banking sector.

Global cooperation is necessary to ensure that a repeat of the global financial crisis can never take place. Shared rules are needed to ensure that banks are properly regulated and have sufficient capital buffers in place, as well as that downward pressure on excessive risk-free bonuses is maintained.

As a result of the international Basel III agreements and of additional steps taken by individual financial regulators, real progress has been made on achieving these goals. However, there are signs that more may be required if the issue of systemic stability is to be fully addressed. The evidence of continuing too-big-to-fail subsidies indicates that market discipline has not yet forced banks to adequately self-insure against individual loss by financing more of their assets with equity. And of course, market discipline would never force equity sufficient to insure against the systemic spillover effects of inadequate self-insurance.

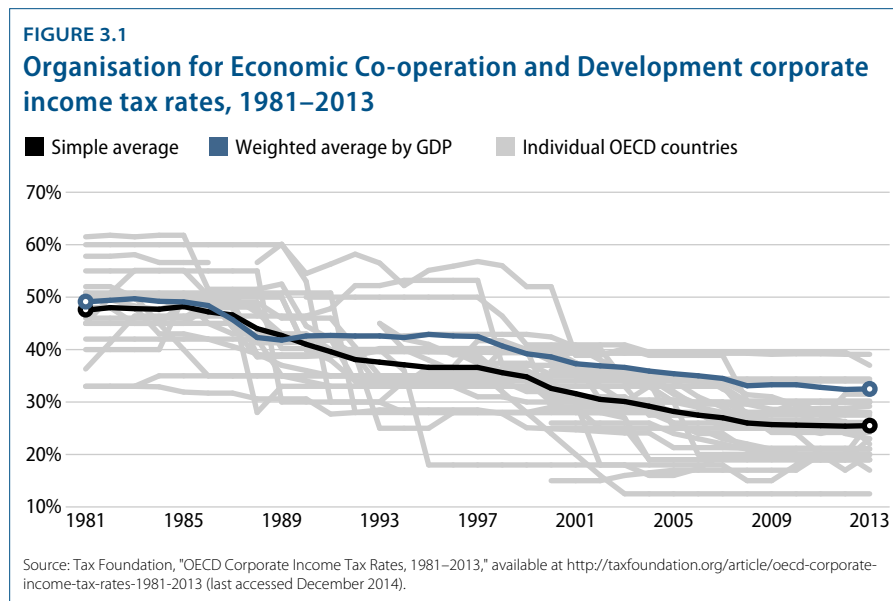
In addition, there are major potential problems yet to be addressed in the shadow-banking system. For example, it is not clear that the run risks created when assets are funded using short-term repurchase agreements or the cash from securities lending—or for that matter, when money market mutual funds purchase asset-backed commercial paper—have been effectively addressed. Nor is it easy to see how much leverage shadow banks create for the financial system as a whole.⁶⁸

There is clearly more to be done to reduce the instability problems posed by important elements of the financial system.

A concerted focus on tax avoidance and preventing a race to the bottom on international tax competition

In recent years, statutory corporate tax rates have declined among member countries of the Organisation for Economic Co-operation and Development, dropping an average of 7.2 percent between 2000 and 2011. There is a risk of a race to the bottom in rates as governments attempt to attract corporate residence. There is also, therefore, a potential threat to corporate income tax receipts, which constitute an important component of government revenues—on average, equivalent to around 3 percent of gross domestic product, or about 10 percent of total tax revenues, across OECD countries.⁶⁹

At the same time, there is growing evidence that corporate tax planning aimed at shifting profits in ways that reduce a corporation's tax base in high-tax locations has given rise to significant amounts of globally untaxed corporate income. This situation is compounded by the increasing mobility of income and the growth of digital assets. Studies of U.S. multinational corporations have been the most rigorous and indicate that U.S. federal revenue losses due to base erosion and profit shifting range from \$10 billion to more than \$80 billion annually.⁷⁰



Increasing the share of tax revenues from corporations will require a high degree of international cooperation. The OECD has recognized this problem and instituted the Base Erosion and Profit Shifting, or BEPS, initiative.⁷¹ Previously, the OECD had focused on the elimination of double and triple taxation of companies engaged in cross-border business as a means of promoting growth and fairness. BEPS is aimed at eliminating double nontaxation, which puts the tax base of countries at risk and results in unfairness between domestic and international enterprises. Ironically, the rules that were implemented years ago to eliminate double taxation have also led to double nontaxation in certain circumstances. Taxpayers have become increasingly adept at taking advantage of these legal means of tax avoidance and tax planning. This leads to the distortion of normal economic decisions and substantial revenue loss for countries.

BEPS focuses on developing solutions to the cross-border corporate taxation problem. Another initiative of the OECD, the exchange of information process, focuses on preventing cross-border tax evasion by individuals by promoting bank and financial institution transparency. Under that process, the OECD has developed a Common Reporting Standard and is working to promote adoption across its member nations.

It is critical that member countries support the OECD's efforts, not just by participating in the process but also through concrete actions in their own countries to implement common standards adopted through it. While international action is needed to tackle avoidance, multilateralism must not be used as a pretext for inaction. Knowing who ultimately owns and controls companies and how much tax they are paying, particularly in tax havens, is essential to tackling tax avoidance.

To date, the OECD has presented seven actions of its 15-point plan to end so-called stateless income. The most challenging actions remain, including perhaps the most important: the development of a multilateral instrument to be used by member countries to amend their existing bilateral tax treaties. While most countries share concern, even outrage, at tax avoidance by highly profitable multinationals and may agree in principle that it is wrong, it is far more difficult to agree on mechanisms to address this problem. Yet only through global coordination will governments be able to preserve the important role that corporate tax revenues play in funding critical national programs and to ensure balanced, sustainable economic growth both nationally and globally.

Conclusion

Many advanced economies have struggled to deliver middle-class income growth in the midst of the challenges and changes outlined in Chapter 2: an increasingly global economy, rapid technological change, and a shift in economic power from workers to corporations. The lesson is that economic growth, even coupled with productivity growth, is no longer enough to ensure middle-class income growth. Instead, nations must make smart, progressive public policy choices, such as the ones outlined in this chapter, in order to ensure that all of their citizens share in economic success.

The policy agenda laid out in this report will help our economies reach—and even expand—their potential to deliver inclusive prosperity. Fair minimum wages, family-friendly labor standards, and profit sharing, for example, will raise demand by putting more money in workers’ pockets as a reward for their hard work. These policies will also increase workers’ incentive to work—and work efficiently. Increasing access to and the quality of our educational systems, from preschool through college, will reduce wage inequality, boost productivity, and foster innovation—as will successful regional-cluster policy. A collection of policies—such as enacting major infrastructure investment, reforming countries’ unique corporate governance structures, and focusing on mitigating climate change—will create stable, sustainable growth by encouraging both the public and private sectors to focus on the long term. Finally, policy coordination and collaboration between our countries and others can bring greatly needed international economic and financial stability, all the while preventing a race to the bottom on international tax competition.

The high stakes for both our citizens and our economies justify the kind of bold action advocated in this report. To achieve our vision, we must meet the challenges and risks of a modern world with a robust policy response that effectively, efficiently, and compassionately reforms our economies for long-term sustainable growth. Taken together, this agenda can help make our vision of inclusive prosperity a reality across the developed world.

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Appendix 1

U.S. Policy Response

Appendix 1: U.S. Policy Response

In this appendix, we identify policies that will help meet the economic challenges experienced by the U.S. middle class and those who want to get into it, as well as deliver the benefits of economic growth in a more inclusive manner.

These policies, which are both demand side and supply side in orientation, seek to both encourage more economic growth and ensure that its benefits are felt by the many, not just the few. Indeed, our goal is to ensure growth that will result in more-broadly distributed income gains. The strategies we identify include measures to increase workers' share of productivity gains, expand investments that foster demand, change tax policies in order to ameliorate inequality, increase net export demand by changing trade rules, support public service to limit the damage to youth caused by long-term unemployment, and increase financial stability. These policies are also designed to increase output, make individual workers more productive, and support long-run innovation and productivity growth. They include policies to increase labor-force participation and labor-force growth, increase the accumulation of human capital and earning capacity, support innovation, and change corporate governance to incentivize investment for the long term.

It is important to note that categories are not mutually exclusive. For example, public investment can both increase demand and add to the long-run productive potential of the economy.

Taken together, the demand- and supply-side policies we propose will make the U.S. economy more inclusive, more stable, and more dynamic over time.

Increase workers' share of productivity growth,
which will help sustain demand

The gains from economic growth have become very unequally distributed in the United States. During the 2009–2012 period—the first three years of recovery from the Great Recession—average household income in the United States grew by 6

percent. However, most of those gains were not distributed widely. Fully 95 percent of income gains went to the top 1 percent of households.¹ During this same period, the share of income growth accruing to the bottom 90 percent of households was (minus) -15.7 percent.²

There is a need for policy to ensure that growth is broadly shared with employees, not just employers and the owners of firms—shareholders. Increasing the incentives for profit sharing, empowering workers to bargain with their employers, and establishing a robust minimum wage will help achieve this goal. Of course, a high-pressure economy with a tight labor market is the one surefire way that median wages have increased in the past 40 years. Therefore, policies that encourage a tight labor market will also foster wage growth.

Increasing support for profit sharing

As wage growth and productivity growth have diverged, an increasing share of the net income of business has gone to management pay and to shareholders. In addition to measures that support wage growth, there is a need to create institutional change that will allow more-inclusive capitalism in which profit income is more broadly shared.

Inclusive capitalism practices range from employee stock-ownership plans, or ESOPs, and worker cooperatives—which allow workers an ownership stake in the company—to cash-based profit- and gain-sharing programs, which pay workers a portion of the capital-related income they helped generate but do not grant ownership. The connection between all types of inclusive capitalism is that they compensate a broad base of workers—not just top executives—on the basis of group performance rather than individual performance.

For workers, inclusive capitalism is associated with higher pay, expanded benefits, greater job security, participation in decision making, greater trust in the company and management, and better labor-management relations.³ For businesses, inclusive capitalism is often associated with increased productivity and profitability and a lower risk of business failure.⁴ Profit sharing is also associated with higher productivity. An analysis of more than 60 studies by Rutgers University economist Donald Kruse found that, on average, profit-sharing plans produce a one-time 4 percent to 5 percent increase in the level of productivity in the year they are imple-

mented; in the long term, productivity growth is unaffected, and this gain does not disappear.⁵ In addition, companies often benefit from greater worker loyalty and effort, lower turnover rates, and an increased willingness on the part of workers to suggest innovations.⁶ Policy to support profit sharing should ensure that it is universally applied within firms so that managers and employees share in risks, and of course, profit sharing should not replace stable, diversified pension plans.

The United States should explore new policies to encourage profit sharing by companies, such as:

- **Increase tax incentives:** To encourage larger firms to participate in profit sharing, firms should be allowed to deduct incentive-based pay as a business cost. However, firms should be eligible for such tax benefits only if incentive programs are sufficiently broad based to cover most of their workers—for example, if the value expended on the top 5 percent of employees is also expended on the bottom 80 percent.
- **Expand tax incentives for ESOP creation:** The United States has significant tax subsidies for ESOPs. Of the firms taking advantage of the ESOP tax incentives, most are smaller (with a median size of 125 employees).⁷ Estate tax relief should be provided to a retiring founder or owner who transfers a successful firm to an ESOP.
- **Improve education:** Many companies and employees are simply unaware of the benefits of inclusive capitalism. Several states have centers to promote ESOPs on the theory that there are often high start-up costs for ESOPs that can be deferred by education centers. The United States should establish an Office of Inclusive Capitalism within the U.S. Department of Commerce to help address these issues.⁸

Expanding worker voice

There is a need to increase worker voice and bargaining power to deliver higher wages because of the downward pressure on wages highlighted in previous chapters. Collective bargaining by employees plays this role in many advanced economies. It delivers benefits both for union members and for workers who are covered by collective bargaining agreements even though they are not union members.

In the United States, however, the incidence of collective bargaining is relatively low. There are several reasons for this, but one strong contributing factor is the process by which workers decide whether they want to exercise their rights to collective bargaining. At the moment, this process is time consuming, generates a high level of conflict, and often puts individual workers at risk of retaliation from employers. This environment works to the detriment of both firms and workers since stronger collective bargaining rights are part and parcel of high-productivity workplaces, where employees and management share ideas about making the business more efficient.⁹

The U.S. National Labor Relations Act guarantees the right of workers to form unions and bargain collectively with employers. In practice, the exercise of these rights can be difficult because of the way the law is administered. The time between worker petitions for representation elections and the elections themselves can take many months. The environment surrounding the election can be intimidating since there are no constraints on employer-initiated captive-audience speeches and penalties for firing union supporters and other acts of coercion are minimal. There is strong empirical evidence that coercion is widespread and has increased in frequency over time.¹⁰ When representation elections are won, there are no real remedies when an employer fails to bargain in good faith.

Relatively small changes in procedure can make the process fast and fair and reduce the atmosphere of conflict that can surround the election and initial bargaining. For example, U.S. policy changes could expedite elections to determine union representation by requiring that elections be held within five days of a successful petition for bargaining. Such policies could fast-track litigation issues and limit captive-audience speeches at the place of employment, making worker attendance at these speeches voluntary. U.S. law could provide effective remedies for unfair labor practices by implementing mandatory injunctions to end unfair labor practices and allowing double back pay and the right to compensatory damages for workers who are subject to unfair labor practices during elections. Currently, employees who are fired because of union activity need to mitigate their lost wages, which means the costs to employers is minimal.¹¹ If there is employer coercion in the election process, the law could make card check, as opposed to a formal election, a mandatory remedy.

It would also help to require automatic arbitration of first contracts. Currently, even if employees elect to join a union, there is no remedy if an employer refuses to bargain on a first contract in good faith following the representation election. This tactic can frustrate the purpose of the election. Automatic arbitration would change the incentives of both employer and employees and encourage good-faith bargaining.

Modernizing employment rules to accommodate the changing nature of work

The United States is unique in providing significant aspects of basic economic security through the employment contract. The prime example is health care insurance: In the United States, the prototypical manner in which a middle-class family receives health care insurance is through an employer. In Europe and much of the developed world, health care is delivered through the government. As a consequence, this means that as employment changes and the employer-employee relationship unravels, American families are left far more vulnerable than their counterparts in other countries. With the passage of the Affordable Care Act, a significant element of economic security is guaranteed within the United States regardless of employment status; however, other elements—including pensions, workers' compensation, and unemployment compensation—are all still tied to employment.

The unraveling of the traditional employer-employee relationship has made it more difficult to provide basic economic security and labor-law protections to workers. As corporations have shed employees through devices such as subcontracting or hiring independent contractors, they have also shed traditional responsibilities as employers, leaving families to face risks on their own. Americans face one of three options: stand by as families increasingly bear these risks, create government programs to address the need, or attempt to modernize the employer-employee relationship to ensure that employers continue in their traditional roles.

Reasonable applications of existing employment law can help. Firms that misclassify employees have long been an issue in the U.S. construction industry, where firms use subcontractors and create subsidiaries to avoid employer responsibilities.¹² Currently, many workers at franchises of large corporations are nominally employees of the franchise, but the franchising corporation determines much of their workplace life. The National Labor Relations Board, or NLRB, has proposed treating the parent corporation of McDonald's, the world's largest chain of fast-food restaurants, as a joint employer with its franchised stores for purposes of meeting the requirements of labor laws.¹³

The elimination of state-level obstacles to worker voice can also help. At the same time wages have stagnated across the country, some states have enacted laws that limit collective bargaining coverage and reduce wage growth. Wisconsin, Michigan, and Indiana, for example, have recently passed laws restricting collective bargaining by public employees, and the latter two have become "right to work" states, which weaken workers' abilities to garner higher wages through unions. A recent study by the Economic Policy Institute shows

that median compensation growth has been lowest in states where collective bargaining coverage has declined.¹⁴ States that are trying to restart robust wage growth for their citizens should consider reversing these policies.

In addition, we need to create new institutional forms to empower workers. For example, mandatory works councils—elected bodies of employees with rights to information, consultation, and codetermination of certain employment conditions at local workplaces—have the potential to make both firms and workers better off.¹⁵ They can do so by increasing the sharing of information between workers and management and creating more cooperative labor relations generally. As Harvard economist Richard B. Freeman and Edward Lazear, who chaired the Council of Economic Advisers under President George W. Bush, have put it:

Councils with rights to information reduce economic inefficiencies by moderating worker demands during tough times. Conversely, by assuring that firms use worker-provided information to benefit labor as well as the firm, councils increase the willingness of workers to communicate to management, raising social surplus.¹⁶

While works councils are established institutions in many advanced economies, they do not exist in the United States. Works councils in the United States must be effectively structured so they create incentives for workers and managers to share information, which can improve productivity and create worker voice in decision making while maintaining strong support of employers.

Increasing the minimum wage

When large fractions of the workforce are earning low wages, their welfare is affected and their contribution to aggregate demand is limited. Comparative empirical work on the share of low-wage work in advanced economies suggests that the most important determinant of the observed differences across economies is the degree of inclusiveness of labor-market institutions. Inclusiveness is defined as “mechanisms to extend the wages, benefits, and working conditions negotiated by workers in industries and occupations with strong bargaining power to workers in industries and occupations with less bargaining power.”¹⁷

There are two principal mechanisms that operate successfully in advanced economies today to generate inclusiveness for low-wage workers: agreements to extend coverage of collective bargaining agreements to nonunion workers and firms

and minimum wages that are high and tied to the median wage of all employed workers.¹⁸ In contrast to other advanced economies, in the United States, about 13 percent of workers are covered by collective bargaining agreements, and the minimum wage is low relative to average production-worker wages.¹⁹

The United States should set a minimum wage that is at least high enough to prevent full-time workers from living in poverty. Increasing the federal minimum wage to at least \$10.10 per hour would accomplish that goal; that rate is slightly less than half the current average wage of private production and nonsupervisory employees. Importantly, the minimum wage should be indexed to rise with the consumer price index so that low-income workers do not automatically see pay cuts when Congress fails to update laws. The available evidence strongly suggests that a strong minimum wage is one good way to reduce the share of workers who are trapped in low-wage work; it also saves taxpayers money by reducing reliance on transfer programs such as the Supplemental Nutrition Assistance Program, or SNAP, formerly known as the food stamp program.²⁰ Recent empirical research by economists Arindrajit Dube, Michael Reich, and William Lester shows that an increase of the magnitude considered here would not have measurable negative employment effects.²¹

Similarly, the U.S. Department of Labor should significantly increase the salary threshold that guarantees overtime rights for salaried workers making below a certain salary. Overtime rights ensure that workers receive extra pay when they do extra work. Today, the threshold stands at about \$24,000 per year and covers 11 percent of salaried workers—much less than 1975's inflation-adjusted \$50,000-per-year threshold that guaranteed overtime rights for two-thirds of workers.²² The U.S. Department of Labor has signaled that it will increase the salary threshold in 2015.

Better target public investment to increase demand and raise long-run productive capacity

The United States faces two distinct, important, and related challenges on national infrastructure investment. First, there are too many good investments—that is to say, too many projects with positive financial return—that we should be making as a nation but are not. The solution to this challenge is simple but requires political courage: We must increase how much we are investing in infrastructure to raise potential and actual gross domestic product, or GDP. Second, we should make

important, data-driven changes to the process of both how we fund these projects and how we track outcomes to improve public trust and continuously improve the efficiency and usefulness of infrastructure spending over time.

Independently, both reforms are crucial, but together they become even more so. Improving how we manage infrastructure priorities and projects raises the return on public investments, ensuring that taxpayers get the most for their infrastructure dollar as we catch up on deferred maintenance and build out the fundamental services and facilities that America needs to compete in the 21st century.

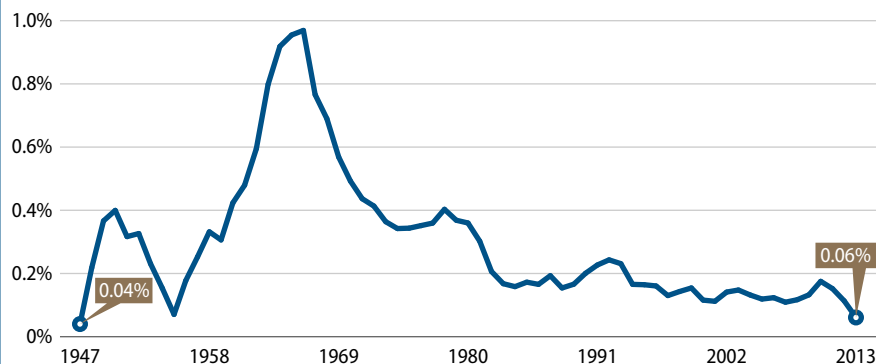
Expanding infrastructure investments to increase productivity and relieve constraints on growth

An economy can only grow as fast as its infrastructure systems can move information, people, and goods. Infrastructure investments provide strong middle-class jobs and productive assets that serve as the foundation for long-term economic competitiveness, increased prosperity, and a high quality of life. By comparison, failing to invest in these systems leads to deteriorating facilities, unpredictable service disruptions, congestion, and higher costs to businesses and households. Now is the time to increase public investment in America's infrastructure. To underscore this argument, look no further than New York City's John F. Kennedy International Airport, a major national and international hub, which has been described as a third-world facility.

Similarly, the amount of deferred maintenance in our nation's roads, public schools, and water facilities is huge. (see "Public investment in infrastructure" text box below) The U.S. air traffic control system, which relies on ground-based radar rather than GPS technology, is decades out of date and inefficient. Underfunded infrastructure creates real costs for Americans: Bad roads increase auto repair costs for all drivers, outdated air traffic control costs travelers time, both at work and with their families. Most embarrassingly, we send too many of our children to school in antiquated and dangerous buildings where peeling lead-based paint lowers their IQ scores at the same time that we expect them to learn.²³

FIGURE A1.1**U.S. public investment is at near-historic low**

Net federal nondefense investment as a share of GDP, 1947–2013



Source: Bureau of Economic Analysis, "U.S. National Income and Product Accounts."

According to the International Monetary Fund, or IMF:

Even in some advanced economies, in which measures of the quantity of infrastructure appear high relative to those in the rest of the world, there are deficiencies in the quality of the existing infrastructure stock. Business executives' assessment of the overall quality of infrastructure has been declining for the United States and Germany, reflecting largely the perceived deterioration in the quality of roads and highways. As the American Society of Civil Engineers (2013) notes, 32 percent of major roads in the United States are now in poor or mediocre condition, and the U.S. Federal Highway Administration estimates that between \$124 billion and \$146 billion annually in capital investment will be needed for substantial improvement in conditions and performance—considerably more than the current \$100 billion spent annually on capital improvements at all government levels.²⁴

If the United States addresses these needs now, there are both short-term and long-term benefits. Stimulating employment in sectors that have been hard hit by the Great Recession, such as construction—in which employment remains well below normal levels—will have a positive effect on wages and create more middle-class jobs for workers who do not have postsecondary degrees. Given that the U.S. economy is operating below potential and current and expected real interest rates are quite low, there is currently little risk that private investment will be displaced.

Moreover, many kinds of public investment—including spending on public transportation, water, power, education, and research and development—have positive social rates of return when executed well.²⁵ That is to say, there are net gains in overall productivity from making these types of investments.

In addition, because an increase in current output levels may have positive effects on potential output in the future—the “hysteresis effect” identified by J. Bradford DeLong and Lawrence H. Summers in 2012—the net benefits from public investment during a period of significantly depressed output may be amplified, and such investments may even pay for themselves.²⁶

To bring our infrastructure to a competitive level and to increase demand when it is needed, the United States should raise public investment in infrastructure by \$100 billion annually for the next 10 years.

Public investment in infrastructure

Public schools

U.S. public school facilities are in need of extensive improvements. Data recently collected by the U.S. Department of Education show that:

*Among public schools with permanent buildings, the building systems/features were rated as being in **fair or poor condition** [emphasis added] in their permanent buildings in 14 to 32 percent of the schools: windows (32 percent); plumbing/lavatories (31 percent); heating system, air conditioning system, and ventilation/filtration system (30 percent each); energy management system, security systems, and exterior lighting (29 percent each); roofs, interior finishes/trim, and internal communication systems (25 percent each); electrical system (22 percent); technology infrastructure (21 percent); interior lighting and life safety features (19 percent each); exterior walls/finishes (18 percent); and framing, floors, and foundations (14 percent).²⁷*

The numbers noted above amount to thousands of schools with leaking windows and plumbing, faulty heating and air conditioning, peeling paint, and defective electrical wiring. The data also indicate that the financial shortfall is significant:

53 percent of public schools needed to spend money on repairs, renovations, and modernizations to put the school's onsite buildings in good overall condition. The total amount needed was estimated to be approximately \$197 billion, and the average dollar amount for schools needing to spend money was about \$4.5 million per school.²⁸

Water infrastructure

Because water infrastructure is typically out of sight and underground, it is a chronic source of underinvestment. Americans are aware of deficient roads and bridges because these examples of failing infrastructure are easy to relate to and the system's flaws are known. In 2013, the American Society of Civil Engineers graded America's roads a C+. In the same report, America's water infrastructure received a grade of D+.²⁹

The water system is profoundly inefficient—the U.S. Environmental Protection Agency, or EPA, estimates that about one-sixth of the water we treat for drinking and pump into our systems simply leaks out.³⁰ Moreover, our water systems are based on a hodgepodge of outdated technology, much of which is at or past the end of its useful life.³¹ In the Northeast and Midwest, roughly two-thirds of all water mains were installed before the Great Depression.³² In parts of the West, water still travels through wooden pipes, a technology so out of date that few workers even have the skills to maintain the system.³³

The need to modernize the water system is vast, not only to maintain existing systems and accommodate growing populations but also to reduce losses as climate change makes drinking water more valuable. Simply maintaining the current system is a tremendous investment. Even before federal austerity measures took place in 2011, the EPA estimated that it would take \$384 billion to keep up with drinking water infrastructure needs over the next 20 years.³⁴

Increasing the return on public investments by defining national goals and ensuring accountability through performance management

The vast majority of infrastructure funding flows to states, metropolitan regions, and public authorities through formulas set by law. For example, only about 5 percent of federal transportation funding is awarded competitively.³⁵ These formulas typically reflect the needs of members of Congress more than the needs of the country. As a result, political geography is the most important factor when deciding how to allocate scarce resources. We need to change that dynamic while recognizing that formula programs have an important role to play in distributing infrastructure funding.

In addition to raising overall investment, the federal government must reform infrastructure funding in three important ways: first, increase the share of federal funds distributed through nationally competitive grant programs to 25 percent of the total, with a focus on projects of regional and national significance; second, rationalize formula programs so that money flows based on need and not political geography; and third, institute rigorous performance management, including requiring grant recipients to collect and report data to demonstrate that their project selection decisions are advancing national infrastructure policy objectives.

While discussions of infrastructure tend to focus on dynamic mega projects, the vast majority of funds support smaller maintenance and capacity improvement projects. Although they are less splashy, these projects are every bit as critical to economic growth and competitiveness as big-ticket projects are. At the same time, there are numerous projects of regional and national significance that remain stuck in the planning stages because states and local authorities simply cannot afford their completion. The benefit of a hybrid approach to distributing federal infrastructure funds is that it leverages the efficiency of formula programs while ensuring that we advance critical large-scale projects of regional and national significance, such as tunnels between New York and New Jersey. Moreover, performance management will help build public support for increased investment by demonstrating that state and local authorities are good stewards of public dollars and that they are making progress toward national objectives.

The greatest constraint on infrastructure investment is the public's willingness to pay various user fees and taxes; the public rightfully demands that infrastructure be a sound investment instead of pork-barrel spending that wastes taxpayer money. Establishing clear policy goals and holding grant recipients accountable

through a process of performance management is central to overcoming these political hurdles and unlocking public support. Leadership in the infrastructure space requires the ability to connect government investments to a vision of the future with opportunities and prosperity for families and businesses alike. The key element is trust, which is earned by demonstrating results.

Infrastructure projects take years to plan and construct, a reality that often complicates efforts to establish public trust that investments are yielding promised results. The companion to setting clear national goals is measuring system performance over time. Performance management is a transparent, data-driven, and rational approach to infrastructure investments that maximizes performance outcomes through detailed analysis of system data. For each national goal, there should be a corresponding set of performance measures. Tracking results over time allows elected officials to mark progress and reinforce the fact that tax dollars are flowing to worthy projects.

Across asset classes—from airports to bike lanes—infrastructure investments should increase economic competitiveness, improve access to opportunity for diverse communities, maintain facilities in a state of good repair, reduce major injuries and fatalities, improve efficiency, and minimize impacts on ecological and social environments. Translating these goals into specific performance measures will vary depending on the sector.

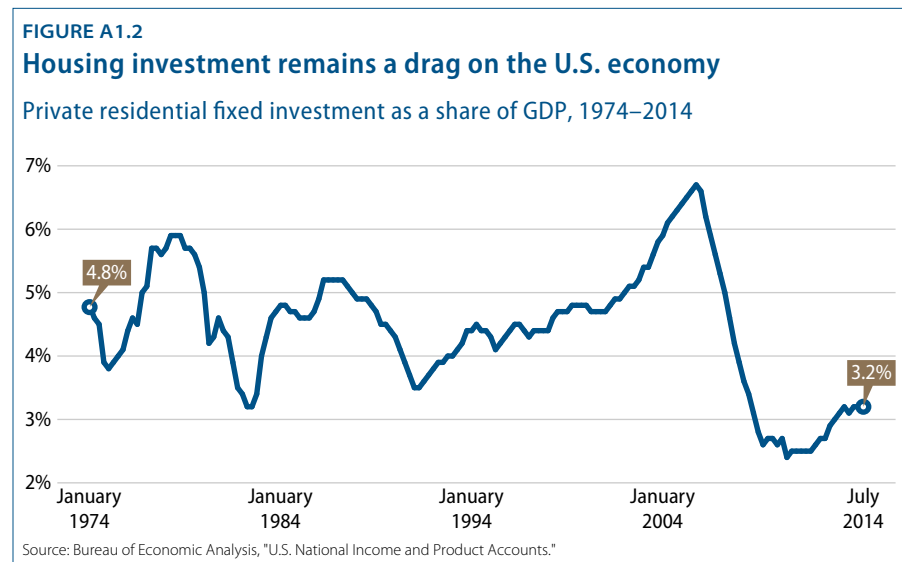
New investments in infrastructure should:

- Require project sponsors to model how projects of regional and national significance will achieve national policy goals as part of the competitive selection process
- Increase the share of competitively funded federal infrastructure spending to 25 percent
- Require project sponsors to track and report on system performance over time, including a comparative analysis of how the project performs compared to initial estimations
- Prioritize project applications from sponsors that have a proven record of cost-effective delivery facilities that advance national policy objectives
- Require national, regional, and metropolitan governments to report on system performance for each of the performance measures that correspond to policy goals

Increase demand and provide for housing needs by restoring residential investment

Residential investment usually leads the U.S. economy out of recessions. It is not playing its traditional role in this recovery, and this is one reason why the recovery has been slow. Residential fixed investment, relative to GDP, is below its normal value. In the second quarter of 2014, the ratio was 3.2 percent, down from a 1970–1990 trend value of 4.7 percent.

We need to take action to stimulate investment in both single-family homes and rental housing, which will increase employment and provide for the housing needs of our population. This is especially important because construction and other work related to the housing industry provide middle-class jobs for workers without university educations. We believe there are several policy changes that can help facilitate safe, sustainable homeownership and the production and preservation of affordable rental housing.



Single-family housing

Overall, the national mortgage market is significantly smaller today than it was before the Great Recession. The national homeownership rate has dropped from close to 70 percent to 64 percent.³⁶ Cash investors made 29 percent of all

purchases in 2013, way above the historic norm of 10 percent to 12 percent.³⁷ Housing starts remain depressed, and even optimistic projections for 2015 remain well below levels seen before the housing boom.³⁸

Access to mortgage credit remains tight. For a conventional mortgage, the average FICO score is 754, and while Federal Housing Administration, or FHA, credit is easier to obtain with average credit scores around 680, it is still tighter than historical norms.³⁹ The Urban Institute estimates that approximately 1.2 million fewer purchase mortgages were made in 2012 than would have been the case if credit availability had remained at pre-bubble 2001 levels.⁴⁰

In terms of specific populations, homeownership rates for young people (ages 25–34) are among the lowest in decades.⁴¹ While that could be explained in part by the timing of the Great Recession and by the later ages at which this demographic group is forming families, even 35- to 54-year-olds (Generation X)—who should be in their prime homeownership years—have a homeownership rate that is lower than expected.⁴²

Perhaps most troubling, homeownership rates for people of color have dropped dramatically, with Latinos falling by 9 percent from their peak and African Americans by 13.7 percent.⁴³ Because the majority of families formed in America going forward will be families of color, a steep reduction in the numbers of Latinos and African Americans buying homes spells trouble for the housing market for decades to come.⁴⁴ The drop in homeownership rates also plays a significant role in the ever-increasing wealth disparities between whites and people of color.

At the same time, while home prices nationally have rebounded from the lows reached during the Great Recession, price recovery has been remarkably uneven, with some localities still deeply underwater. For example, in the Las Vegas Metropolitan Statistical Area, or MSA, home prices are still 45 percent below their peak, and in Miami, prices are 41 percent below.⁴⁵ In cities and ZIP codes throughout New Jersey, Michigan, California, Georgia, and other states, the percentages approach and exceed 50 percent.⁴⁶

Even in many of the housing markets where prices have recovered, these price increases are not just the result of a healthy market fueled by household formation and families building wealth but are also driven by institutional investors.⁴⁷ This investor presence may support housing prices and perhaps even inflate them but will not necessarily stabilize neighborhoods or pave the way for move-up buyers or homeownership in the future.

The communities and populations hit the hardest by the foreclosure crisis remain in the worst shape. Not only are 17 percent of homeowners (8.7 million) underwater nationally, but in the 395 hardest hit ZIP codes, between 43 percent and 76 percent of homeowners are underwater.⁴⁸ More than 70 percent of these ZIP codes have incomes below the national median, and in two-thirds of them, African Americans and Latinos account for at least half of the population.⁴⁹

The foreclosure crisis wreaked havoc on neighborhoods and household finances across the country. Since the start of the crisis, there have been 5 million completed foreclosures, with about another 630,000 homes in some stage of foreclosure; at least 1.5 million households have managed to avoid foreclosure through tools such as short sales but still lost their homes and any equity they had accumulated in it.⁵⁰ These foreclosures have cost homeowners, neighborhoods, and investors dearly: A typical foreclosure costs borrowers up to \$7,000 in administrative costs alone, costs investors more than \$75,000, reduces the value of neighboring homes, and costs local governments through reduced property taxes and increased anti-blight expenditures.⁵¹ A recent study even linked foreclosures to declines in neighbors' health.⁵²

Rental housing

The decline in homeownership has led to an increase in renters, placing significant upward pressure on rent prices. As of 2012, more than half of all renters spend more than 30 percent of their income on housing, which is the historical upper limit of rent affordability. More than one-quarter of all renters spend more than half of their gross income on rent, significantly reducing their ability to pay for food, child care, health care, and other necessities.⁵³ While the number of households experiencing worst case housing needs—either because they live in severely inadequate housing or spend more than half of their income on rent—has increased, Congress has repeatedly cut rental assistance programs and subsidies for affordable housing production, and the share of households eligible for these benefits that actually receive them has continued to fall.⁵⁴

Consequently, the U.S. economy cannot benefit from the economic multiplier effects of a strong housing market, including construction jobs and local and state tax revenue. Additionally, the persistence of negative equity continues to depress aggregate consumer demand. At the same time, many creditworthy households that wish to buy a home cannot because of today's restrictive lending, losing out on the ability to build wealth by buying a home at a time of historically low prices.

Policy changes

To restore residential investment and to protect homeowners, the Federal Housing Finance Agency, or FHFA, should encourage homeownership and affordable rental housing by:

- Changing its pricing rules so that mortgages are equally affordable to all qualified borrowers—in other words, without sacrificing control of credit risk. Right now, Fannie Mae and Freddie Mac charge higher fees to all but the most pristine borrowers. This policy drives up the cost of credit for many potential homeowners, pushes these borrowers to government-insured mortgages, and dampens demand for mortgages overall.
- Permitting Fannie Mae and Freddie Mac to offer loan modifications with principal reductions. Principal reductions help keep borrowers in their homes,⁵⁵ encourage those borrowers to maintain their homes properly, and save money for the taxpayer by reducing the costs that Fannie and Freddie have to bear when mortgages they guarantee go through foreclosure.⁵⁶
- Working with Fannie Mae and Freddie Mac to implement targeted lending programs, underwriting pilots, and partnerships with nonprofits and other market participants in order to expand access to credit.
- Setting strong benchmarks for the government-sponsored enterprises, or GSEs, to increase affordable single- and multifamily lending, including subgoals for small multifamily properties and reporting requirements for single-family rental,⁵⁷ and implementing the “duty to serve” rule enacted in the Housing and Economic Recovery Act of 2008 that requires Fannie and Freddie to better support rural housing, affordable housing preservation, and manufactured housing.

Nothing about these changes will enable the GSEs to once again take on excessive credit risk through purchasing high-risk loans and securities as they did in the run-up to the financial crisis. They do not create exemptions from the strict Dodd-Frank requirements that creditors assess a borrower’s ability to repay a mortgage loan. Nor do they weaken the authority of the Consumer Financial Protection Bureau to enforce those Dodd-Frank requirements.

Additionally, both FHFA and FHA can support affordable homeownership and rental housing, as well as neighborhood stabilization, by appropriate disposition of distressed loans. Both of these agencies have overseen bulk sales of pre-foreclosure

distressed loans aimed at saving money for the taxpayer and potentially providing these borrowers with last chances to save their homes.⁵⁸ Distressed mortgage sale programs, if designed responsibly, can limit the damage of the foreclosure crisis by helping homeowners to access foreclosure alternatives, supporting neighborhood home prices and stability, and limiting losses to taxpayers. Both FHFA and FHA should better promote these goals by imposing a basic set of requirements on all loan buyers, helping neighborhood-based nonprofits participate in loan sale programs, ensuring loans that are sold have met all loss-mitigation requirements, and collecting and sharing detailed program performance data. Similarly, state and local officials should ensure adequate protections for tenants in single-family rental homes, and federal regulators should monitor cash-investor activity in the single-family rental market; measure its impact on tenants, rents, neighborhoods, and homeownership opportunities; and take action as needed. In areas with a significant amount of cash investment, there are risks of home-price bubbles, a renewed cycle of price declines if the investors sell in bulk, or locking potential homeowners out of the purchase market if they are unable to compete with investors buying in cash.

Use scalable public service to counteract cyclical employment declines for young workers

One of the costs of the Great Recession has been a sharp rise in long-term unemployment. Long-term unemployment affects people of all demographic groups, but its impacts are particularly devastating for young people. Young workers have their whole careers in front of them, and long-term unemployment among this group can reduce their lifetime earnings while increasing fiscal pressure on public benefit programs.⁵⁹

National service programs have a long and successful history of harnessing the desire of citizens to serve their country, and these programs also deliver important economic benefits that are especially valuable in times of high unemployment. National service is for people of all ages, but some programs are specifically designed for young people, such as the National Civilian Community Corps, or NCCC. Policymakers should maximize the benefits of national service by creating a new funding stream for service programs that automatically rises when long-term unemployment is high among young workers and falls when it is low. The temporary positions created by this automatic funding stream should focus on workers who have exhausted their regular unemployment benefits.

National service helps participants get jobs—exactly what a country needs during periods of high unemployment. In the United States, a study by the Corporation for National and Community Service, or CNCS, found that out-of-work people who chose to volunteer were 27 percent more likely to find a job than similar people who did not volunteer, with an even stronger effect found among those living in rural areas or lacking a high school diploma. Another CNCS study found that the AmeriCorps program improved job skills among participants and led many to choose a career in public service.

Congress should always provide robust funding for a baseline of national service programs by fully funding the 250,000 positions authorized by the Serve America Act in discretionary appropriations. Congress should establish a separate mandatory funding source to specifically address periods of high long-term unemployment among young people.

The temporary positions funded by mandatory spending should be designed to handle the drawdown that must follow any temporary expansion. AmeriCorps Volunteers in Service to America, or VISTA, and NCCC are well suited to address this challenge. VISTA focuses on building capacity, rather than supporting ongoing operations. NCCC regional campuses can tailor their projects to anticipate the end of temporary funding increases, and NCCC has the additional advantage of being designed for young people. These programs can grow quickly to efficiently utilize this temporary funding increase. Developing a platform to certify high-quality programs and organize them within a searchable database can further expand the growth potential of national service.

Various economic indicators could be used effectively to automatically set the mandatory funding level, so long as funding is robust enough to make a significant difference for reducing long-term youth unemployment. For example, an effective policy response to the current situation would be to double the number of national service positions that should be funded in all times under the Serve America Act from 250,000 positions to 500,000 positions. If the much larger VISTA program administered three-quarters of the temporary positions created by mandatory funding and NCCC administered the remaining one-quarter, an additional 250,000 positions would cost approximately \$5 billion per year.⁶⁰

By pegging a portion of national service funding to economic conditions, these programs would function as automatic stabilizers, which is a proven way to use fiscal policy to respond to economic challenges. Automatic stabilizers, such as

unemployment insurance and nutrition assistance, expand during recessions and contract during expansions. Applying the automatic-stabilizer concept to national service programs would mobilize the engine of service when it will deliver the most economic benefit.

Ensure a level playing field for global trade

Over the past several decades, advances in communication and transportation technology—along with agreements to ease policy trade barriers—have led to a proliferation of global trade and investment that have helped reduce poverty around the world, driven down prices for consumers, and created a web of stable institutions that draws other countries into the global trade and finance system with geopolitical benefits extending well beyond the economic realm.

At the same time, however, global trade integration creates a fundamental tension by remaking relationships in the organization of production and the workplace and altering the structure of labor markets in developed economies that contribute to rising inequality. Globalization and trade deals are not synonymous. The United States has no bilateral trade agreement with China, but offshoring to China has had significant impact on U.S. workers.

These dynamics make it crucial that trade agreements develop rules of the game that provide both American workers and American companies with a level playing field. Trade agreements should ameliorate international arbitrage on wages and help create a race to the top, rather than a race to the bottom. At a minimum, trade agreements should support conditions for collective bargaining and union formation that are stronger than what exist in current U.S. trade agreements so that workers in competitor countries can raise their real wages. Furthermore, trade agreements should support good environmental regulation so that countries are not compelled to court investment by allowing business to create environmental externalities.

Trade agreements should also require that countries with significant state-owned enterprises regularly disclose relevant financial information and contracting details for review by independent, third-party entities in order to enjoy access to the privileges afforded by trade agreements. Otherwise, independent businesses may be forced into competition with firms subsidized by national governments.

Finally, mechanisms must be found to ensure that the goal of free trade is not subverted by exchange rate manipulation. With the U.S. dollar at the center of the international financial system, misaligned exchange rates present an impediment to employment and wage growth for the United States in particular. But undervalued exchange rates also pose significant costs to people in the countries that are doing the manipulating, effectively reducing their real wages by raising the cost of imported goods and services—and therefore that of domestic, import-competing goods and services.

The World Trade Organization, or WTO, rules pertaining to exchange rates are inadequate to address the challenge of unfair advantage from skewed exchange rates. Thus, it is unsurprising that no WTO member country has ever brought a currency dispute to the body. New trade agreements should explicitly include enforceable disciplines against currency manipulation that appropriately tie mutual trade preferences to mutual recognition that exchange rates should not be allowed to subsidize one party's exports at the expense of others.

In the United States, globalization has created downward pressure on wages. However, a system of trade deals that creates upward pressure on wages in developing countries—and will lead to the development of a larger middle class in those countries—can help not just American companies but American workers as well.

Use tax policy to support demand and promote fairness

While the U.S. tax system is more progressive than the tax systems of most other Organisation for Economic Co-operation and Development, or OECD, countries, other countries spend government receipts in a significantly more progressive manner than the United States does. This fact increases the importance of the U.S. tax system as a tool to aid the middle class.

Within the range of federal taxes imposed in the United States, it is the income tax that is the driver of progressivity. The estate tax is progressive for very-high-valued estates and, though small as a share of aggregate federal receipts, adds some progressivity to the system. Yet in recent years, regressive payroll and excise taxes have been growing as a share of federal tax receipts, while progressive income and estate taxes make up a smaller share.⁶¹

Approaches that use the tax system to address inclusive prosperity are best divided into short- and long-term measures. This is because the fundamental restructuring needed to create a more equitable system will take time to accomplish, both substantively and politically. In the meantime, given stagnant middle-class incomes, it may make sense to provide temporary tax relief for those who do not benefit from the United States' signature program that supports low-income workers—the Earned Income Tax Credit, or EITC. Relief beginning at this level would help prevent more households from slipping out of the middle class until wage growth catches up in the recovery.

Short-term middle-class tax relief would ideally be provided until income stagnation is overcome and would be structured as a tax credit to avoid having the amount of the benefit increase with the taxpayer's tax bracket, as occurs with benefits delivered through deductions. It could phase in beginning at the point at which the EITC phases out—\$23,260 for joint filers with children—and phase out beginning at \$85,000 for joint filers with no credit available once income reaches \$95,000. The tax relief could automatically expire in three years or automatically phase out based on Bureau of Labor Statistics data showing improvement in wage growth of a specified amount for the middle class. Thus, this special tax credit would be carefully targeted. Moreover, given that more than one-third of tax filers would benefit from this relief, these credits could make a meaningful contribution to demand.

In the longer term, the tax system needs to become more progressive. As economist Thomas Piketty has emphasized, progressive taxation of income and wealth has a strong influence on the structure of inequality in market economies.⁶² Historically, progressive taxation has limited the concentration of income and wealth. It has also provided needed revenue for social spending. In recent decades, however, the progressivity of tax systems has declined in some advanced economies with the result that high-income households and corporations now face lower effective tax rates.

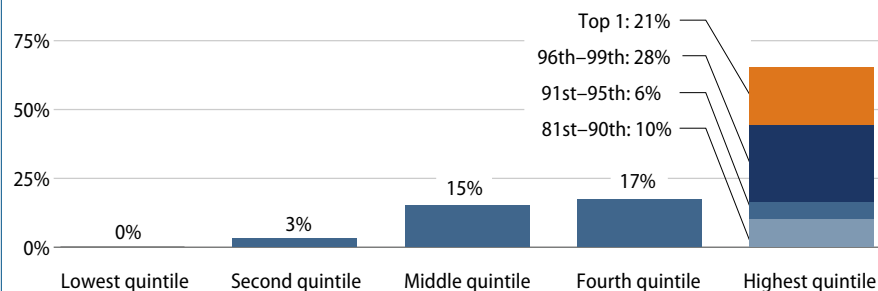
In the United States, a decades-long accumulation of tax exemptions, deductions, and exclusions has helped reduce effective tax rates on high-income households and corporations. These provisions in the tax code, sometimes referred to as “tax expenditures,” shelter significant amounts of income and wealth from normal taxation.⁶³

Step-up in basis

Eliminating the tax rules that shelter high-income households and corporations would raise their effective tax rates, make the tax code more progressive, and avoid the waste created by strategies for tax avoidance. One example of a rule that allows sheltering of income from taxation is a provision of the tax code known as “step-up in basis,” which functions as a direct subsidy for inherited wealth. This is how it works: Typically, when an asset is sold, the capital gain subject to taxation is the sales price minus the seller’s basis in the asset, normally the price that the seller originally paid for the asset.⁶⁴ For inherited property, however, the basis is generally the fair-market value of the asset on the date the previous owner of the asset died.⁶⁵ Calculating an heir’s basis in an asset using its more recent value—the date when the previous owner died instead of its original cost—is called a step-up in basis. The Congressional Budget Office estimates that the step-up in basis rule will reduce federal revenues by \$644 billion over 10 years, with 21 percent of that subsidy going to the top 1 percent of income earners.⁶⁶ (see Figure A1.3) Step-up in basis is a particularly valuable subsidy for the wealthiest estates. A study published by the Federal Reserve estimates that unrealized capital gains comprise 55 percent of the total value of estates worth more than \$100 million.⁶⁷ That means that more than half of the wealth accumulated within the richest estates has never been subject to income taxes.

FIGURE A1.3
Step-up in basis primarily benefits the wealthy in the United States

Share of total tax benefits

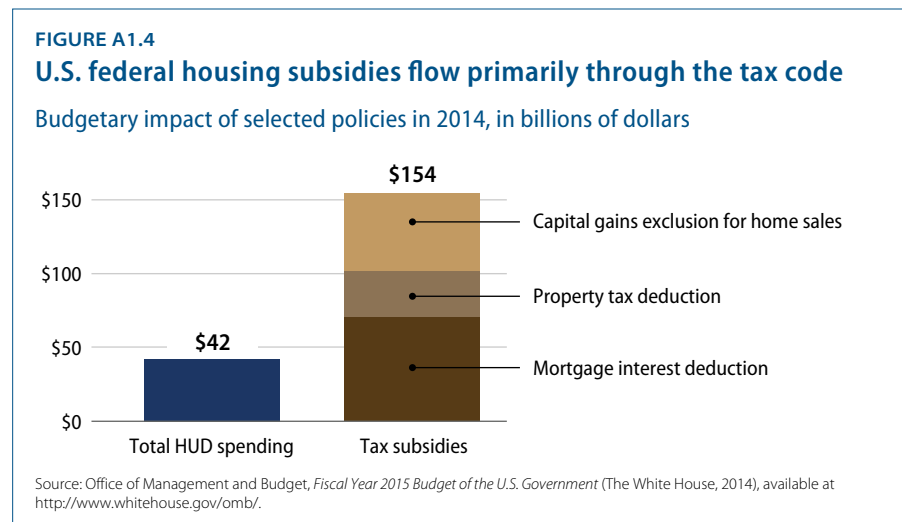


Source: Congressional Budget Office, “The Distribution of Major Tax Expenditures in the Individual Income Tax System” (2013), available at http://www.cbo.gov/sites/default/files/cbofiles/attachments/43768_DistributionTaxExpenditures.pdf.

Housing expenditures

U.S. federal housing subsidies flow primarily through the tax code. The Office of Management and Budget, or OMB, expects the mortgage-interest deduction to cost the government \$70 billion in fiscal year 2014 alone.⁶⁸ The federal tax deduction for state property taxes paid will cost about \$32 billion in FY 2014.⁶⁹ Homeowners also do not have to pay taxes on up to \$250,000 of capital gains when they sell their primary residence, which doubles to \$500,000 for married taxpayers. That capital gains exclusion will cost the government about \$52 billion in FY 2014.⁷⁰ Together, these three housing tax expenditures—which primarily benefit higher-income taxpayers⁷¹—total \$154 billion for FY 2014. In comparison, the entire U.S. Department of Housing and Urban Development, which administers the government’s largest affordable housing programs, will spend about \$42 billion in FY 2014.⁷²

While tax policy can be an effective tool to promote responsible homeownership for working families, the current system needs reform. This could be accomplished by converting itemized deductions, including the mortgage-interest and property tax deductions, into tax credits. While deductions deliver a larger benefit to taxpayers in higher tax brackets, credits deliver the same benefit to all taxpayers, making the tax code more progressive. The eligibility rules for the capital gains exclusion on home sales could also be tightened to focus this benefit on long-term homeowners.



Transfer pricing

Companies can shift income away from the United States and toward low-tax jurisdictions by selling intangible property, such as copyrights or patents, to their foreign subsidiaries in lower-tax countries and then paying the foreign subsidiaries handsomely for the right to use the intangible property. The price paid by the U.S. firm is a deductible expense and is difficult for tax officials to challenge.⁷³ By setting transfer prices to maximize the tax benefits, U.S. multinational corporations can reduce their U.S. tax bills without changing the real ownership of any assets or the overall financial position of the multinational company. The tax code contains transfer-pricing rules that are supposed to prevent multinational corporations from gaming the tax system in this way. The goal of transfer-pricing rules is to ensure that prices paid between members of a multinational corporate group reflect what would have been bargained for between unrelated parties, known as the “arm’s-length principle.”⁷⁴ In the case of intangibles, however, many of the tools used to assess the accuracy of pricing become less reliable and easier to evade.⁷⁵ First, comparable transactions between two unrelated companies do not often exist for many of the transactions that occur within a corporate group.⁷⁶ As a result, government tax administrators do not have a baseline to use when determining what an arm’s-length transaction would have looked like. Second, the unique nature of patents, copyrights, and trademarks compounds this problem since even the closest examples of transfers of rights between unrelated companies involve intangible assets with significant differences.⁷⁷ Workable anti-base erosion rules can overcome these ambiguities and prevent multinationals from gaming the system.⁷⁸ President Barack Obama’s FY 2015 budget includes a rule to prevent transfer-pricing abuse that would raise revenues by about \$21 billion over 10 years.⁷⁹

Corporate taxes: Earnings stripping

The United States taxes income earned by U.S. businesses under a worldwide system.⁸⁰ Under this system, tax is owed to the United States regardless of whether the income is earned in Alabama or Albania. However, U.S. multinational corporations are also offered the option to defer taxes owed on profits earned by their foreign subsidiaries. Taxes can be deferred on these profits until the foreign subsidiary repatriates the earnings back to their U.S. parent company.⁸¹ But while those foreign profits are considered offshore for tax purposes, companies often place those profits in U.S. bank accounts, where they are able to earn interest and circulate through the U.S. economy.⁸² The deferral of taxes on foreign corporate income is the largest tax expenditure in the corporate tax code and is projected to cost the United States more than \$80 billion per year.⁸³

Deferral creates an incentive to move profits to foreign subsidiaries, especially those with low corporate tax rates, in order to delay when taxes are due in the United States. While some profits may be in offshore locations for legitimate business reasons, other profits earned domestically are artificially shifted offshore for tax purposes. This explains why 40 percent of all foreign profits for U.S. corporations in 2011 were booked in Bermuda, Switzerland, Luxembourg, Ireland, or the Netherlands.⁸⁴ These five countries are often referred to as tax havens because of their extremely low tax rates.⁸⁵

U.S. multinationals have clever ways of stripping earnings from their U.S. books and shifting those earnings to their foreign subsidiaries. One common way to do this is by maximizing debt held in the United States. The interest on that debt can be deducted as a business expense and thus reduce the U.S. company's taxable income. Corporations are generally allowed to borrow money in the United States to finance foreign operations and then deduct the interest costs from their U.S. taxable income immediately, even though their foreign income is not taxed until it is brought back into the United States.⁸⁶ By changing the rules on deferring interest deductions, this source of base erosion could be limited.⁸⁷

Financial stability

The last long generation witnessed the Latin American debt crisis of the early 1980s, the 1987 stock-market crash, the savings and loan debacle, the real estate and leveraged-buyout implosions of the early 1990s, the Mexican financial crisis, the Asian financial crisis, the Russia Long-Term Capital Management crisis, the Internet bubble and its aftermath, the Enron and high-yield collapse of the early 2000s, and the recent financial crisis and Great Recession.

Former Federal Reserve Chairman Ben Bernanke said of the last of these events:

*As a scholar of the Great Depression, I honestly believe that September and October of 2008 was the worst financial crisis in global history, including the Great Depression. If you look at the firms that came under pressure in that period ... only one ... was not at serious risk of failure. ... So out of maybe the 12, 13 of the most important financial institutions in the United States, 12 were at risk of failure within a period of a week or two.*⁸⁸

In each of these events—on average once every three years—a financial system whose function was to spread and manage risk proved instead to be a source of risk with consequences for the jobs and livelihoods of hundreds of thousands, if not millions, of people who were not engaged in any way with investment or speculation. At the same time, developments within the financial system have been important drivers of rising inequality and perhaps also of declining corporate performance.

The Dodd-Frank legislation of 2010 represents the most major overhaul of American financial regulation since the Great Depression. It calls for substantial change in areas ranging from the capital and liquidity ratios of financial institutions to conflicts of interest on the part of rating agencies, from executive compensation to the regulation of derivatives, and from provision for the failure of financial institutions to limitations on proprietary trading. Its premise is that the prevention of financial crises requires intervention at multiple levels to be maximally effective.

The first priority for ensuring stable finance in the future has to be its effective implementation. At a minimum, this means not permitting its requirements to be watered down in response to pressure from financial-sector lobbyists. The recent weakening of provisions limiting systemic risks associated with derivative transactions by way of the last-minute insertion of language into must-pass budget legislation must not become a precedent. Further, it is essential that regulators energetically and thoughtfully carry out their responsibilities under the legislation. It is disconcerting that the implementation of regulations in many areas has yet to go into effect as the fifth anniversary of Dodd-Frank's passage approaches.

Beyond the implementation of Dodd-Frank and the steps the international community have already taken, there are a number of issues that have to be addressed before we can be confident in the stability of the financial system.

First, stronger regulation of the shadow-banking system is essential for stability. Indeed, if the effect of more extensive capital and liquidity regulation of major financial institutions is to drive financial activity into an unregulated shadow system, it could even be counterproductive. It is essential that wherever maturity mismatches create the possibility of runs on financial institutions, there are mechanisms to ensure stability in place. These are likely to include capital and liquidity requirements. In particular, we are concerned that the current compromise on money market funds is insufficient both to ensure their stability in future crises and to protect the broader system against regulatory arbitrage.

We support proposals to require money market funds to have subordinated capital buffers to absorb losses. These buffers would reduce the probability of runs because fund shareholders would be aware that the subordinated investors were in a first-loss position. In addition, the holders of the subordinated debt would have incentives to curb excessive risk-taking by the funds. The level of buffers should of course be conditioned on the riskiness and diversification of a fund's assets. But it has been estimated that buffers in the range of 3–4 percent could be adequate.⁸⁹

Second, current procedures for dealing with misconduct by financial-sector participants are manifestly inadequate as evidenced on the one hand by the pervasiveness of malfeasance in areas ranging from money-laundering controls, to market manipulation, to mortgage marketing, and foreclosure implementation and, on the other, by the almost total absence of successful prosecutions of individuals. The practice of allowing settlements without admissions of guilt by financial institutions and their employees should be severely curtailed. Regulators have to either have systems in place that permit accountability for malfeasance or to take responsibility for their absence. And all bonuses should have provision for clawbacks in the event that malfeasance is subsequently discovered.

Third, existing liquidity and capital requirements should be reviewed in light of evidence on the magnitude of losses relative to measured capital during 2008. Large banks including Washington Mutual, Wachovia, and National City were merged into other banks. Net realized losses at Washington Mutual amounted to 9.6 percent of tangible common equity, 7.6 percent at Wachovia, and 9 percent at National City.⁹⁰

There is reason to believe that the observed loss rates at large about-to-fail banks understate what was in store for them had they been allowed to fail and put into bankruptcy. Using default probabilities calculated from credit default swap, or CDS, data for October 2008, University of Chicago economists Pietro Veronesi and Luigi Zingales estimated average bankruptcy costs for 10 large banks and dealer banks at 22 percent of total assets.⁹¹

It should also be noted that the average loss rate for banks insured by the Federal Deposit Insurance Corporation, or FDIC, that failed during the crisis was 28 percent. The scale of these banks was far smaller than Wachovia or Washington Mutual.⁹² However, the scale of realized losses is in the Veronesi and Zingales ballpark.

Increase labor-force participation and labor-force growth

Families in all advanced economies have changed dramatically over the past half century. Gone are the days when most children had a full-time, stay-at-home caregiver. Today, mothers work in record numbers. However, women's labor-force participation in the United States has fallen relative to other comparable nations—due in no small part to the lack of policies to help working families manage the dual responsibilities of earning wages and caring for family members. Addressing the issues facing working families can help fight income inequality by boosting labor-force participation, increasing wages for working caregivers, and reducing temporary separations from the labor force by supporting continuous employment.

In particular, paid parental leave, paid caregiving leave, paid sick days, paid vacation, protections for part-time workers, and workplace flexibility are important to increase the inclusiveness of advanced-market economies.

Using family-friendly labor-market policies to increase female labor-force participation and income

There are substantial benefits from paid parental leave. Access to paid parental leave increases labor-force participation for mothers in the years after giving birth.⁹³ Women with access to paid leave are more likely to return to work and to return more quickly, to the same employer, and at the same or a higher wage.⁹⁴

Paid parental leave increases employment security at a time when families face the additional cost of a new family member. Because mothers with access to paid leave are more likely to return to work and return more quickly, they experience less time out of the paid labor force and earn higher wages because of increased employment experience. Moreover, children with mothers who have access to paid leave are more likely to be breastfed, which is associated with key health benefits for infants; are breastfed for longer periods of time; and are more likely to receive vaccinations on the recommended schedule, resulting in lower disease risks and future cost savings.⁹⁵

The United States is the only advanced economy that does not guarantee paid maternity leave and one of only a handful that does not guarantee paid paternity leave. Only 12 percent of U.S. workers have access to paid parental leave through their employer, and rates are significantly higher for those with the highest earnings.⁹⁶ Approximately 60 percent of workers have access to unpaid, job-protected leave through the Family and Medical Leave Act, or FMLA.

This has a number of negative effects. It contributes to relatively low rates of female labor-force participation in the United States. In 1999, 74 percent of women between the ages of 25 and 54 were in the labor force. Today, the percentage is down to 69 percent. In contrast, female labor-force participation has increased in other advanced economies where parental leave is normal and workplace flexibility is allowed. Participation rates in Japan, Canada, Germany, and France now exceed those in the United States—something that was not true in 1999.

When mothers are the only workers expected to take lengthy leaves from work, it can create a disincentive to hire women of childbearing age, whether they eventually become parents or not. Gendered differences in work experience are one of the major drivers of the gender wage gap, which is partially the result of women taking more time away from paid labor to address caregiving needs. The stigma around parental leave is one of the reasons why mothers have lower wages than child-free women (and all men) even when productivity is taken into account.⁹⁷

Mothers' greater leave taking also contributes to societal expectations that women are responsible for the majority of child care. Fathers who have access to greater paternity leave are more involved in their children's caretaking, and the effects remain significant as the child ages.⁹⁸

To bring domestic policies up to the level of other advanced economies, the United States can build upon the FMLA and follow the examples of California, New Jersey, and Rhode Island by implementing a national paid family and medical leave insurance program.⁹⁹ Notably, leave in these states is gender neutral and non-transferable, which has led to increased leave taking among fathers.¹⁰⁰ The Family and Medical Insurance Leave Act provides one avenue to achieving this goal.

In order to expand access to job-protected leave to the 40 percent of workers who are currently ineligible, the United States should expand the FMLA to cover workers in smaller firms and with shorter job tenures.

Quebec, Canada, offers a model for advanced economies looking to create more-gender-equitable parental leave. Additionally, offering “use it or lose it” paid paternity leave has increased men's take-up rates of this benefit in Scandinavia.¹⁰¹

When workers have access to sick leave that can be utilized when they or a family member experience a short-term illness or to access preventive care, they recover more quickly, require less time away from work, and are less likely to come to work sick, reducing the spread of infection among co-workers and the public.

Workers with access to paid sick leave are more likely to receive recommended preventive care such as colonoscopies and mammograms, to experience fewer workplace accidents, and to remain employed.¹⁰²

The United Kingdom and Australia guarantee workers the right to paid sick leave, while Canada guarantees the right to leave but does not stipulate that it must be paid. The United States has no national policies regarding sick leave—paid or unpaid.

It has been shown that workers who have and take paid vacation experience higher productivity when at work, have stronger workplace morale, have longer tenures with their employer, and experience health benefits.¹⁰³ The United States, however, is the only advanced economy that does not guarantee paid vacation. As a result, almost one-quarter of workers have no paid vacation and no paid holidays.¹⁰⁴ High-wage workers are significantly more likely to have access to paid vacation than low-wage workers.¹⁰⁵ Canada, in contrast, guarantees two weeks of paid vacation, while Australia offers four weeks and the United Kingdom offers 5.6 weeks.¹⁰⁶ These days off are in addition to paid holidays, the number of which varies per nation.

The United States should mirror the rest of the wealthy world by ensuring that workers have access to at least some paid vacation.

Globally, women are more likely to be part-time workers, in part due to family caregiving responsibilities.¹⁰⁷ In the United States, part-time workers are significantly less likely to have access to any form of paid leave or health insurance.¹⁰⁸ This is especially problematic as the rate of people working part time for economic reasons rose dramatically during the Great Recession and remains high.¹⁰⁹ Many low-wage workers struggle to work enough hours, and working multiple jobs has become even more difficult due to the increased prevalence of zero-hours work contracts. These on-call work arrangements do not guarantee that workers will receive hours of work for pay but nevertheless require full-time availability. Ending exclusions from protective wage and benefit requirements is eminently sensible.

Protections for part-time workers would provide safeguards for some of the U.S. economy's most vulnerable workers. Part-time work is especially common in the service sector—jobs that tend to pay low wages and offer few benefits. For example, the average workweek in the U.S. leisure and hospitality industry is only 26.2 hours across all production and nonsupervisory workers, but average wages are less than \$14 per hour.¹¹⁰

Workers are spending more time at work today than they did a generation ago, yet inflexible and unpredictable schedules make it difficult for workers to balance their jobs with family and personal needs. Almost 30 percent of all Americans report having work schedules with varied daily start and stop times, with 10 percent reporting schedules that fluctuate so much that they cannot accurately predict a typical weekly work schedule.¹¹¹ This is particularly true for low- and middle-income families: Nearly 70 percent of low-income workers in the United States do not have the option of changing their scheduled start or stop time if needed. Only about half of workers can alter their schedule or the location where they do their work if they need to.¹¹² The ability to exercise even minimal control over one's work life is important, and access to predictable schedules can help workers provide or arrange for proper child and elder care without paying unnecessary care costs.

Both the United Kingdom and Australia have right-to-request legislation, which permits employees to request flexible work arrangements and requires that employers seriously consider such requests and provide justification if requests are rejected.¹¹³ The U.K. legislation covers those responsible for the care of a child or an adult. In Australia, the legislation covers workers with disabilities, workers over age 55, and those who are experiencing domestic violence or caring for a family or household member who is experiencing domestic violence.¹¹⁴

The United States and Canada have no federal mandates on access to flexible work policies. In Canada, however, some local jurisdictions have provisions permitting some forms of workplace flexibility such as “compressed” work weeks in which workers still work 40 hours per week but not necessarily over the course of five full working days. In the United States, San Francisco¹¹⁵ and Vermont have recently adopted right-to-request provisions.¹¹⁶

Right to request enjoys broad popular and business support in the United Kingdom and Australia and has not been shown to impose undue administrative or financial burdens. It provides an easy improvement in the lives of workers with family responsibilities and should make it easier for them to maintain continuity of employment and stability of income.

Using immigration policy to counteract the slowdown in domestic population growth

Many advanced economies are faced with slowing natural population growth rates. Since growth in output is heavily dependent on growth in labor inputs—as standard growth accounting exercises demonstrate—declining labor-force growth reduces the growth of potential output.¹¹⁷

The decline in population growth, combined with relatively higher life expectancy and lower retirement ages, can also contribute to secular stagnation. These factors combine to increase the savings rate, since older households tend to save more and people who live longer will need to save more for retirement. Moreover, as population growth slows, so does expected demand for goods and services. This reduces investment demand. The increase in the savings rate and reductions in investment demand contribute to a tendency for advanced economies to operate at a low level of output and employment.

The United States is in a better long-term position than Japan and many European economies, which have experienced declining domestic population growth, in part because immigration has contributed to the growth of our labor supply. According to the Congressional Budget Office, or CBO, there were approximately 40 million foreign-born people living in the United States in 2012, and they made up about 13 percent of the population, the highest percentage since 1920.¹¹⁸ The labor-force participation rate of 25-year-old to 64-year-old male immigrants was 90 percent, higher than the 83 percent for prime-age, native-born men. The participation rate for prime-age, foreign-born women was 65 percent, compared to 72 percent for native-born women.¹¹⁹ These facts are part of the reason that CBO estimated that comprehensive immigration reform as considered by the Senate would increase 2023 GDP by 3.3 percent and reduce the deficit by \$200 billion over the next 10 years and an additional \$700 billion over the following 10 years.¹²⁰

If we can continue to attract both the highly skilled and unskilled labor that we need to complement the growth in our domestic labor force, it will help us sustain long-term economic growth. As CBO has concluded, the growth in the labor force from increased immigration has raised output, productivity, and average wages in the long term.¹²¹

Expand educational opportunity to increase human capital and support economic mobility

Supporting early childhood education

The global financial crisis of 2008, along with the resulting widespread austerity cuts to social programs, significantly exacerbated levels of inequality in developed nations. In response, national governments are increasingly investigating policy solutions that address the destabilizing effects that the crisis had on economic productivity and social cohesion. Over the past decade, evaluations of small demonstration programs and large-scale federal programs alike have added to the body of evidence supporting the existence of high-quality early childhood programs.

Early childhood education, or ECE, programs have been shown to substantially reduce the school-readiness gap that manifests even before children enter kindergarten, producing positive outcomes that last well into adulthood.¹²² Evaluations of high-quality preschool programs in Boston, Massachusetts, and Tulsa, Oklahoma, for example, showed that children gained an additional year of learning in language, reading, and math.¹²³ These gains in the early years go on to positively affect everything from high school graduation rates to lifetime earnings.¹²⁴ Importantly, all recent evidence has shown that these programs make the most profound difference in the lives of low-income children and children of color.¹²⁵

Research confirms that ECE has positive long-term effects over the course of a child's lifecycle. Investment in high-quality early childhood programs beginning at birth—including preschool and child care—can have the dual benefit of preparing children for success and helping parents, especially women, participate in the labor force. National ECE programs, together with other improvements to the educational system, promise to add significantly to human capital formation in advanced economies.

Eliminating financial barriers to higher education

As recently as 1996, the United States had the second highest share of adults who earned postsecondary education credentials and the highest share of adults with university degrees, according to the Organisation for Economic Co-operation and Development's measurements of educational attainment

levels across developed nations.¹²⁶ More recently, however, America's level of educational achievement has fallen behind other nations. In 2012, the most recent year measured, the United States ranked fifth in the percentage of adults who had earned postsecondary education credentials.¹²⁷

The United States is also showing more-pronounced downward educational mobility. Twenty-nine percent of American men and 17 percent of American women had less education than their parents, compared with the OECD average of 19 percent for men and 13 percent for women. Twenty percent of U.S. men and 27 percent of U.S. women had more education than their parents, compared with the OECD average of 28 percent and 36 percent, respectively.¹²⁸

Education beyond the secondary level—known in the United States as higher education and in some other countries as tertiary education—has been shown to increase the prosperity of communities, states, and nations. Recent studies in the United States have shown that a 1 percent increase in the share of a state or region's population who are college graduates raises wages, not just for the college graduates but for high school graduates and dropouts as well—by 1.6 percent and 1.9 percent, respectively.¹²⁹ But increasing college attendance and completion rates has proven difficult in the United States, resulting in largely stagnant college attainment rates that threaten economic prosperity, particularly among at-risk populations.

In the United States, the lack of college attainment has contributed to a growing student-loan debt problem. Many students are having difficulty repaying their student loans, and students who left college without a degree are having the most trouble repaying their student loans.¹³⁰ Today, more than \$1 trillion in federal student loans are outstanding.¹³¹ As of 2013, only 60 percent of borrowers in repayment were actually making their scheduled payments. The remaining 40 percent were in deferment, forbearance, or default, indicating that the student-loan borrowers are in distress.¹³²

To solve this problem, the United States needs a bold new approach. We should make higher education virtually free at a community college or a public four-year college so that all high school graduates and their families have no doubt that they can afford higher education. Each high school graduate would receive support at a level up to the tuition and fees at a public four-year college or university. If students attend a community college, they would receive an amount that would cover the cost of that education. If a student attends a private college or university, the student would receive an amount equal to the comparable public education.

Under such a system, students would be required to repay all or part of the support they received as a percentage of their income over a specified period of time—for example, 20 years or 25 years. If former students are struggling economically, no payment would be required until their earnings are sufficient to make payments. And similar to the payroll tax for Social Security, there would be a cap on the amount that an individual would need to repay.

Such a system is similar to those employed by other countries, including those that have surpassed the United States in terms of college attainment rates. Under the Australian financial aid system, students receive money from the government to cover the tuition and fees at Australian colleges, including all public universities and some private institutions.¹³³ The government supports these institutions directly and requires students to pay for a portion of their education. This amount is known as the student contribution and can be financed by the government. Students receive a bonus or discount of the loan amount if they are able to pay a portion up front or if they enroll in certain programs, including math, science, education, and nursing.¹³⁴ The debt borrowed to cover the student contribution is repaid after graduation using the tax system. The borrowed amount does not accrue interest; it is indexed each year based on an increase in the consumer price index.¹³⁵ Repayment is based on the borrower's income. No payment is required for borrowers who earn less than \$53,000 annually. Repayment rates are graduated based on income and range from 4 percent of income paid by those who earn \$53,000 to 8 percent of income paid by those who earn more than \$99,000.¹³⁶

Since 2000, Australia has significantly boosted the share of its population that has earned postsecondary education credentials and degrees. In 2000, just 27 percent of Australian adults had earned postsecondary education credentials. By 2012—the most recent year for which data are available—the share of adults in Australia with postsecondary education credentials had increased to 41 percent; the country is ranked eighth among the countries examined. Among Australian young adults ages 25 to 34, 47 percent have earned postsecondary education credentials, up from 31 percent in 2000.¹³⁷ Overall, Australia is first among all OECD and partner countries in the share of young adults (77 percent) who are expected to pursue university degrees before turning 25 years old.¹³⁸

Several other countries have shown marked improvement based on the statistics from the OECD. New Zealand, for example, has implemented a program similar to that of Australia and has seen significant increases in the levels of college attainment. Recently, Germany announced free tuition at its public colleges and universities.

Supporting apprenticeship and other skills training

In the United States, young workers are not gaining the skills they need to replace a rapidly aging workforce. The average age of a skilled manufacturing worker is 56 years old.¹³⁹ But too many young people lack sufficient literacy and numeracy skills—the ability to work with and understand numbers—calling into question their ability to effectively perform these jobs when the older generation leaves the workforce.¹⁴⁰

As a result, employers are increasingly worried about their ability to find skilled labor. A PricewaterhouseCoopers, or PwC, survey of global CEOs found that “an inability to find enough skilled talent is the number one concern of business executives around the world.”¹⁴¹ Less than one-third of respondents to the PwC survey felt confident that they would find the talent they need to grow their companies.¹⁴²

Meanwhile, the United States is experiencing high levels of youth unemployment. It currently stands at more than 12 percent, more than double the national rate of unemployment.¹⁴³

There is a clear need to develop and expand the skills of workers who do not go to university. There is a wide spectrum of technical and vocational training that is needed. Apprenticeship is good example of skills training that has worked in many advanced economies.

Apprenticeship is a worker-training model that supports economic growth by boosting companies’ productivity and connecting workers to good jobs. An apprenticeship is a job in which the worker is paid to learn a set of skills through on-the-job training. A strong and diverse apprenticeship system that includes a wide range of sectors and occupations helps businesses meet the demand for skilled workers while offering higher wages and better employment outcomes.

Switzerland, Germany, and Austria have long-established apprenticeship systems that are renowned for their high quality. A majority of young people from these three countries enter the workforce through apprenticeships, which are available across a wide range of sectors and occupations. Apprentices are typically in their teens and early 20s. The governments are very involved in regulating, developing skills standards for, and subsidizing the programs.

The United Kingdom¹⁴⁴ and Australia¹⁴⁵ have sought to expand their apprenticeship systems in recent years. Both countries have successfully increased participation by employers and workers, expanded occupations, and increased gender diversity. But apprenticeships in the United Kingdom and Australia are low quality compared to Switzerland, Germany, and Austria, and much of the growth in apprenticeships in the United Kingdom and Australia has been among workers over age 25. The U.K. and Australian governments provide some subsidies, but this can and should be improved, as well as their involvement in regulating apprenticeship quality. To that end, the United Kingdom recently launched an effort to engage employers to develop uniform apprenticeship standards.¹⁴⁶

The United States has a small apprenticeship system of about 375,000 apprentices, heavily concentrated in the building and construction trades.¹⁴⁷ U.S. apprentices are typically older (with an average age of 29) and overwhelmingly male.¹⁴⁸ Although limited in number and type of occupations, the existing programs are high quality. The federal government spends \$30 million annually on administration, but offers no financial incentives to employers or apprentices, and apprenticeship standards vary across the country.

There is substantial evidence that apprenticeship programs efficiently increase the accumulation of productive human capital. Researchers have found that U.S. workers who complete an apprenticeship make about \$300,000 more than comparable job seekers in their lifetimes.¹⁴⁹ Apprentices in the United Kingdom have been found to make a weekly wage that is 10 percent higher than that of their peers.¹⁵⁰

A Swiss study found that employers spend around \$3.4 billion annually training apprentices but see a return of approximately \$3.7 billion each year from apprentices' work during training.¹⁵¹ In Canada, researchers found that employers receive a benefit of \$1.47 for every dollar spent on apprenticeship training.¹⁵²

In the United States, Washington state realized a return on investment for apprenticeships of \$23 for every public dollar invested—substantially higher than for any other workforce-training program, including community colleges, which were found to have a return on investment of \$3 for every public dollar invested.¹⁵³ The U.K. Department for Business, Innovation and Skills and the National Audit Office determined that for every pound spent by the government to support apprenticeships, the United Kingdom gets a return of between 18 pounds and 28 pounds.¹⁵⁴

For these reasons, apprenticeship programs are a promising policy for increasing skill levels and long-run economic growth.

Reform corporate governance to encourage long-term investment

There is substantial evidence (see Chapter 2) that the incentive structure currently facing corporate decision makers is flawed. Horizons for investment decision making have been shortened because management compensation is strongly tied to short-term stock-market performance. While the incentives of performance-based pay are straightforward for many professions, the difficulty of measuring the performance of corporate executives leads to misaligned incentives that do not lend themselves to simple solutions, yet share prices are typically the singular measure of executive performance linked to compensation.

As these incentives have been increasing, declines in marginal tax rates on high incomes appear to have increased the incentives for managers to seek increased compensation overall, as the after-tax gains have increased. Unfortunately, this process has been strongly driven by peer benchmarking with little empirical evidence that these changes in incentives have improved overall economic efficiency.¹⁵⁵ Large executive compensation packages limit the corporate income available to compensate ordinary workers and reduce the incentives for corporate decision makers to invest profits in future projects, even when those investments are in the best long-term interest of the firm.¹⁵⁶

Both the public and private sectors can and should reform this incentive structure in a variety of effective ways. On the public side, most corporate tax regimes currently allow all executive compensation to be deducted from income as a cost of doing business.¹⁵⁷ By limiting these deductions—for example, allowing only compensation packages of \$1 million or less to be deducted—very high management pay would become more costly to the corporation. Differential tax treatment can also be used as a lever to better align the long-term incentives of stakeholders and executives in a variety of ways.

Behavioral distortions that arise from the practice of compensating upper management with stock options can be attenuated by significantly increasing the time between option vesting and exercise and by limiting the amounts that can be exercised in a given period.¹⁵⁸ In addition, because corporate stock buybacks create potential conflicts of interests for managers with option compensation, policymakers should examine revisiting Securities and Exchange Commission, or SEC, regulations to find ways to discourage managerial opportunism while allowing useful repurchases.¹⁵⁹

While the liquidity of equity markets makes some long-term governance issues difficult to address without public policy, investors and fund managers already have the incentive structure and power to correct many problems. Excessive short-termism, whether driven by executive compensation or other factors, is not in the best interest of stakeholders in the firm.

Greater disclosure and usability of both corporate boards and individual board members' track records would greatly reduce transactions costs in determining the quality of governance at firms. In the short term, firms that take governance seriously would see share prices appreciate as investors realize that these firms are better managed, and in the long run, this behavior should compel more firms to pursue better governance and executive compensation practices.

Conclusion

Inclusive prosperity has been an elusive goal for U.S. policymakers, especially after a severe economic downturn from which we have yet to fully recover. We have identified strategies that would quickly bring the U.S. economy back to full strength by increasing the purchasing power of the middle class, thereby creating a virtuous cycle of prosperity as companies have an incentive to hire. Critically, many of these policies, such as infrastructure and residential investment, will also make our economy more productive in the long run. When combined with inclusive supply-side policies such as reducing barriers to affordable, high-quality early childhood and higher education, they could usher in a new era of inclusive growth.

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Appendix 2

U.K. Policy Response

Appendix 2: U.K. Policy Response

The Inclusive Prosperity Commission's conclusions echo to a great degree the political debate in the UK – and the challenge for policy makers here. The aim for progressives in the UK is to show that we can make Britain better off, create more good jobs and build an economy that works for working people.

Reforms will be needed that directly tackle the stagnation in living standards which in the UK has been deep and long lasting - and to show how Britain can earn its way to higher living standards for all over the long term.

The importance of shared prosperity is not just a matter of values, but a matter of economics too. Higher incomes for ordinary families would speed the recovery of the real economy from the effects of the financial crisis in a way that benefited the many and not the few. In the short run, higher incomes lead to higher demand, which will increase growth. In the longer term a high-productivity, high wage economy is the best route to sustained growth and rising living standards.

Raising wages: Full employment in an economy where work pays

Although unemployment has been falling across the developed world and now in the UK too, there are still too many people out of work.

Long-term unemployment and youth unemployment are particularly acute issues which must be addressed. In the sectors where jobs growth is taking place, good jobs with clear career progression must be developed.

For most people in work, the spending power of wages are being eroded. The minimum wage has fallen in value and insufficient enforcement has weakened its effect. The increase in part time work is associated with salaries that are often less than the living wage.

To help sustain living standards, there is an important role for tax credits but they must be used in conjunction with a strong minimum wage to ensure they are an added reward for hard work rather than a subsidy for low pay.

The UK policy response on employment during the financial crisis was a signal success – as the case study of the future jobs fund demonstrates. And thanks to long term reforms taken over decades in the UK, a flexible labour market has meant unemployment levels have not reached levels of previous recessions and have fallen recently. This was despite a new Government in 2010 pulling the rug out from under the recovery and causing a temporary increase in youth unemployment and several years of stagnant growth.

However the quality of jobs, and wages, remains of significant concern. They are an important pre-condition to sustainable public finances. In the UK, despite significant cuts to discretionary spending, public borrowing has been higher than planned in recent years as a result of weaker tax receipts driven by low wages and labour market insecurity.

The policy response should reflect these challenges. This should include;

1. Support for young people facing long-term unemployment

- A guaranteed paid starter job for every young person out of work for over a year – which they will have to take or lose their benefits.
- Replace adult out-of-work benefits for young people (aged 18-21) with a parental means-tested youth allowance, conditional on them being in training.
- Introduce a Basic Skills Test to ensure every jobseeker is assessed for basic English, maths and IT skills, with those lacking these skills offered training to improve their chance of finding a job.
- Boost apprenticeships by requiring every firm getting a major government contract to offer apprenticeships.

2. Family-friendly labor market policies to increase female labor force participation and income

- Help working parents with 25 hours free childcare for three and four year-olds.
- Guarantee parents access to wraparound (8am-6pm) childcare through their local school if they want it.
- Tackle the gender pay gap by requiring large companies to publish the difference between men and women's pay.

3. Raising take home pay for low wage workers

- Increase the National Minimum Wage to £8 an hour by 2020, with a target of getting it closer to median earnings.
- Give Local Authorities a role in enforcing the National Minimum Wage as well as introducing higher penalties for companies that don't pay it.
- Promote the living wage with government: using its procurement policy to encourage more employers to become living wage employers; providing tax breaks for firms that sign up to become living wage employers; and requiring listed companies to report on whether or not they pay the living wage
- Cut income tax for 24 million working people through a lower 10p starting tax rate.
- Ban recruitment agencies from only hiring from overseas.
- Abolish the loophole in the agency workers regulations that allows firms to pay agency workers less than permanent staff.

4. Increasing worker voice to increase wages

A long-term plan to raise productivity and tackle Britain's low skill, low wage culture.

- Increase transparency on pay, by requiring companies to publish the ratio of the pay of their top earners compared to the average employee, and the pay packages of the ten highest paid employees outside the boardroom.
- Simplify executive pay packages and ensure that there is an employee representative on remuneration committees to ensure that the views of ordinary staff are heard when decisions to award top pay packages are made.
- Require investment and pension fund managers to disclose how they vote on pay and all other issues, and ensure that shareholders approve remuneration packages in advance.

5. Protecting workers who are underemployed

- End the abuse of zero-hours contracts, including giving employees the right to receive automatically a fixed-hours contract when they have consistently worked regular hours.
- Ban employers from being able to require zero-hours workers to be available on the off-chance that they will be needed and stop employees from being required to work exclusively for one firm if they are on a zero-hours contract. We must also ensure that zero-hours workers who have their shifts cancelled at short notice will receive compensation from their employer.
- Guarantee a part-time, compulsory job to everyone out of work and claiming benefits for more than 24 months.

Educational opportunity for all

In a world where technological change is increasing productivity and mechanising jobs, raising skills levels is essential to increasing growth in the long-term. World class schools, universities, vocational training and apprenticeships are critical.

The UK education system has great strengths, with world class universities and science base, and progress in schools strong since the mid-1990s. But a historic challenge of the UK education system has been an excessive focus on the traditional academic routes through A-Levels and university.

The current Government has abandoned attempts by the previous Government to reverse that trend and to provide high quality alternatives for those who do not choose that path. As a result, many talented young people, for whom a quality vocational qualification would have been a better option, have been let down by a system that offers no clear route to a successful career.

This is limiting life chances for young people while preventing businesses from getting the skills they need to succeed - holding Britain back.

Renewed focus should be given to early years, to building world class schools and an inclusive education system that gives high quality routes to all young people regardless of where their skills and talents lie and the path they choose.

The policy response should include

1. **Early learning and childhood education**

- Extend free childcare from 15 to 25 hours for working parents with three and four-year-olds.
- Introduce a legal guarantee that parents of primary-aged children can access childcare from 8am to 6pm through their local school.
- Reinvigorate Sure Start, reforming the way local services work together to shift from sticking-plaster services to radical early help.

2. **World-class schools**

- Guarantee parents that all teachers in state schools will be qualified.
- Require teachers to continue building their skills and subject knowledge on the job, with more high quality training and new career paths.
- Ensure all schools are locally accountable with new local Directors of School Standards responsible for intervening in underperforming schools.

- End the flawed Free Schools programme and instead prioritise new schools in areas where there are shortages of school places.

3. **Support for vocational education**

- Introduce a new gold standard Technical Baccalaureate for 16-18 year olds.
- Ensure that all young people study English and maths to 18.
- Introduce new Technical Degrees delivered by universities and employers.

4. **Support for apprenticeships to increase productivity and employment**

- Improve the quality of apprenticeships, so that they are focused primarily on taking young people to level three and beyond.
- Hand employers control of £1 billion for apprenticeships, and in return ask that they step up and offer real apprenticeships and training across the country.
- Use public procurement to boost the number of apprenticeships in the UK by requiring every firm getting a major government contract to offer apprenticeships.
- Give businesses more control over apprenticeships in exchange for increasing the number. Raise the standard and quality of apprenticeships so they last a minimum of two years.
- Require large employers hiring skilled workers from outside the EU to offer apprenticeships.
- Create thousands more apprenticeships in the public sector.

Measures to support innovation and regional clusters

The UK has a particular challenge with levels of research and development (R&D). Government-financed gross domestic R&D as a percentage of GDP is now around a third lower than countries like the US, Germany, Sweden and Korea. Industry-financed gross domestic R&D is just half of the level in all these countries and the lowest in the G7 as a percentage of GDP. Increasing both private and public sector R&D levels should be a priority of British national policy. But it is critical that emphasis is placed on the development, demonstration and deployment of new technologies as well as on basic research where Britain has tended to perform well. There is a critical role here for industrial policy tools, which have come back into fashion in the UK, to support existing research and industrial strengths, especially where they are concentrated in regional clusters.

The Adonis Review of growth found that much of the UK's innovation and growth is concentrated in too few areas. The cities and regions outside of London and the South East have industrial clusters but these are not well enough supported. A

recent McKinsey report found that there are 31 economically significant clusters spread around the UK, including chemicals in Hull and metals in South Yorkshire. Taken together, they account for 8 per cent of the UK's businesses but generate 20 per cent of UK output. However, the majority of the most successful clusters are located in London and the South East.

The policy response must focus on supporting growth across the country – and in giving strategic powers to local and sub-regional bodies to drive the growth of clusters and diversified and sustainable growth.

It should include;

1. Supporting innovation clusters

- A long term funding framework for science and innovation as recommended by the Wright Review.
- Build on Catapult Centres and focus on deepening the links they create between the scientific research community and businesses, especially small and medium sized businesses.
- Cut business rates in 2015 and then freeze them in 2016 for over 1.5 million business properties.
- Reform our banking system to increase banking competition
- Create a British Investment Bank, with a network of regional banks, to boost lending for small businesses to grow.
- Set a long term national funding framework for innovation policy, and giving small innovative firms greater access to government research budgets.
- Establish a new Small Business Administration, to provide support for SMEs across government.

2. De-centralisation to support innovation clusters

- Devolution of £30 billion of funding to allow cities and county regions to shape local provision of skills, employment support, infrastructure and business support.
- Reform Local Enterprise Partnerships so that they are strong independent bodies with their own pooled budgets and strong Governance.
- Devolve the revenue from Business Rates to Combined Authorities so that any additional income can fund infrastructure priorities and incentivise investment to drive growth.
- A greater role for employers in designing vocational qualifications and ensuring they have a key role in commissioning and planning skills provision in their area.
- Setting a target for 25 per cent of all government procurement contracts to go to SMEs both directly and through supply chains.

Greater long-termism in the private and public sector

The review into short-termism in the UK economy, led by Sir George Cox, established that short-termism is constraining the ambition of UK business, holding back its development and inhibiting economic growth. The research established that the causes include, but go well beyond, the oft-blamed functioning of capital markets. It concluded that what is required overall is a strategic view of how to utilise the inherent strengths of British business to make it globally competitive in the 21st century. How effectively this issue is addressed will determine the future economic health of the nation.

These findings echo similar concerns highlighted over decades by a great many economic commentators in the UK. The response to these challenges should include

3. Reforming corporate governance to encourage long-term investment

- Broaden the public interest test for takeovers to take into account the impact on the UK's science base.
- Restrict who should be able to vote on a takeover to give long-term shareholders a greater say.
- Abolish quarterly reporting rules and put duties on investors to act in the best interests of ordinary savers and prioritise the long-term growth of companies they are investing in over short-term returns.
- Amend the Corporate Governance Code so that firms publish the ratio of the pay of their top earner compared to the average employee and the pay packages of the ten highest paid employees outside the boardroom, and justify top pay if the ratio between the highest and average paid worker is more than 40:1.
- Put employee representatives on remuneration committees, ensuring the views of ordinary staff are heard when decisions to award top pay packages are made. Introduce binding votes on remuneration packages that work, by ensuring shareholders must approve a decision in advance, not after the event.
- Place a duty on institutional investors to act in the best interests of ordinary savers and to prioritise long-term growth of companies.
- Cutting Business Rates for Small Businesses while maintaining the most competitive Corporation Tax rate in the G7.
- Capitalize a British Investment Bank to support small business investment.
- Give control over the full revenue from business rates to powerful new city and county regions which come together in combined authorities to tackle the chronic local problems of poor skills, infrastructure and economic development.

4. Investment in infrastructure

- A new independent National Infrastructure Commission, as proposed by Sir John Armitt, to look 25-30 years ahead at the evidence for the UK's future needs across all significant national infrastructure areas and set clear priorities, for example, nationwide flood prevention or energy supply.
- An infrastructure assessment carried out every 10 years and including extensive research and consultations with the public, local government, NGOs, regulators and other interested groups or individuals.
- Parliament to vote on the evidence-based infrastructure priorities and 10 year plans, and scrutinize delivery.
- Mitigating and adapting to the effects of climate change
- A new climate change adaptation plan, which reprioritizes the importance of tackling the risk posed by floods.
- Introduce a 2030 low carbon target to decarbonise electricity and give investors certainty to invest in low carbon technology.
- Delivering the government's commitment to give borrowing powers to the Green Investment Bank.
- New approach to energy efficiency which insulates five million homes by 2025.

Better functioning domestic financial markets

The finance and insurance sector makes up around 8 per cent of the UK economy and employs over one million people. It is a global industry in which the UK plays a leading role, and financial services alone make up more than 9 per cent of UK exports.

The most important role for the banking system should be to serve our businesses, providing the funding they need to start up and grow. This is essential if we are to build a productive economy, with businesses investing for the long-term and creating the secure, well-paid and high-skilled jobs we need.

Small businesses in particular rely on bank finance, and should be able to trust the banks to understand their needs and act in their best interests. Without this we will be unable to raise living standards. In the aftermath of the financial crisis there are four key priorities for the UK's financial sector.

First, stability is needed to underpin long-term investment as set out in the proposals of the Independent Commission on Banking. This includes creating a ring-fence between retail and investment banking. However, there is further to go on areas such as better linking pay to long-term performance and ensuring that there are clear lines of regulatory responsibility.

Second, the lack of competition in the sector must be addressed. This has been clearly identified by the Independent Commission on Banking, the Parliamentary Commission on Banking Standards, the Competition & Markets Authority and others as a long-standing problem.

Third, businesses and households must be given greater access to affordable finance.

And finally the culture of the banking sector needs to change further to deliver the whole package of reforms. The financial crisis and mis-selling scandals have undermined trust in the sector. There is still some way to go before that is restored.

1. Encouraging greater competition in the banking sector

- Increase competition in the banking sector, including by reducing the concentration of the sector with at least two new challenger banks. A market share threshold will be introduced – modelled on similar mechanisms in the US – which would trigger a competition inquiry if it were to be breached. The Competition & Markets Authority are now investigating the lack of competition in the banking sector, and the level of the threshold will be set as part of that review.
- Support the growing network of local and regional banks and other local finance providers, with a detailed understanding of the needs of businesses in their area and a remit to support those businesses.
- Ensure a strong ring-fence between retail and investment banking, so that retail banks develop a culture of customer service and recent scandals such as the mis-selling of Payment Protection Insurance and interest rate swaps are not repeated.

2. Establishing realistic leverage limits for financial institutions

- The Treasury should set a target for the leverage ratio, which would then be supervised by the Financial Policy Committee to ensure banks are safe.

3. Reforming the bonus culture

- Repeat the tax on bankers' bonuses in order to fund labour market interventions and tackle the long-term scarring caused by youth unemployment.
- Ensure that pay and bonuses are better linked to the long-term performance of financial institutions, through mechanisms such as clawbacks.

4. Improving access to finance

- Introduce a proper Business Investment Bank which supports small businesses and helps them to access finance.
- Tackle the exploitation of some customers through the high-cost credit of payday lenders, including with a levy on profits to support providers of affordable credit, such as credit unions.

About the Co-Chairs

Lawrence H. Summers is the President Emeritus of Harvard University. During the past two decades, he has served in a series of senior policy positions in Washington, D.C., including as secretary of the treasury for President Bill Clinton, director of the National Economic Council for President Barack Obama, and vice president of development economics and chief economist of the World Bank.

He received a bachelor's of science degree from the Massachusetts Institute of Technology in 1975 and was awarded a Ph.D. from Harvard in 1982. In 1983, he became one of the youngest individuals in recent history to be named as a tenured member of the Harvard University faculty. In 1987, Summers became the first social scientist ever to receive the annual Alan T. Waterman Award of the National Science Foundation, and in 1993, he was awarded the John Bates Clark Medal, given every two years to an outstanding American economist under the age of 40.

He is currently the Charles W. Eliot University Professor at Harvard University and the Weil Director of the Mossavar-Rahmani Center for Business and Government at Harvard's John F. Kennedy School of Government. He and his wife, Elisa New—a professor of English at Harvard—reside in Brookline, Massachusetts, with their six children.

Ed Balls is the Labour and Co-operative Member of Parliament, or MP, for Morley and Outwood and Shadow Chancellor of the Exchequer in the British Parliament.

He was previously the MP for Normanton from 2005 to 2010; the Labour Party's shadow home secretary from 2010 to 2011; secretary of state for children, schools and families from 2007 to 2010; and economic secretary to the U.K. Treasury from 2006 to 2007.

During the period from 1994 to 1997, when the Labour Party was in the opposition, and then as chief economic adviser to the U.K. Treasury from 1997 to 2004, Balls worked on policies including the independence of the Bank of England,

the windfall tax, the New Deal jobs programme, Sure Start, tax credits, and the national minimum wage.

Balls is a member of Unite, Unison, and the Co-operative Party. Born in Norwich in 1967, his family moved to Nottingham when he was 8 years old. Balls studied at the University of Oxford's Keble College and Harvard University's John F. Kennedy School of Government.

Balls served as a teaching fellow in the Harvard Department of Economics from 1989 to 1990 and was previously a columnist for the *Financial Times*, *The Guardian*, *New Statesman*, and *Tribune*. Balls is married to MP Yvette Cooper. They have three children. His interests include music, cooking, and playing football with his children.

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